THE SECTORAL AND REGIONAL SENSITIVITY OF ONTARIO MANUFACTURING INDUSTRIES TO TARIFF REDUCTIONS

CANADA-U.S. FREE TRADE AGREEMENT
PRELIMINARY TRANSCRIPT

BACKGROUND PAPER NOVEMBER 17, 1987

GOVERNMENT OF ONTARIO

THE SECTORAL AND REGIONAL SENSITIVITY OF ONTARIO MANUFACTURING INDUSTRIES TO TARIFF REDUCTIONS

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I INTRODUCTION

A great deal of recent economic analysis and commentary has focused on the growth of the services sector and the information economy. Despite the increasing importance of these industries, manufacturing continues to be an essential contributor to economic growth and a source of benefits to individual workers, to the Ontario economy, and to the Canadian economy as a whole.

From the perspective of Ontario workers, manufacturing provides some of the highest wages and the best opportunities to acquire technical knowledge and skills, thus contributing to personal development and enhancing employment prospects. Direct employment in manufacturing now provides about one million jobs for Ontario workers.

For the Ontario economy, manufacturing is a crucial supplier of the products needed by society, a market for the goods and services of other industries, and a significant source of the productivity gains and technological advances essential to enhancing competitiveness. Manufacturing accounts for nearly a third of the province's output. Manufacturing tends to be more productive than many other industries and is also a major source of new technologies and products to improve the efficiency of primary and tertiary industries. Besides providing inputs to these industries, the manufacturing sector accounts for a substantial part of the demand for services -- especially those of a high-tech nature.

Canada's economy reaps benefits from a healthy Ontario manufacturing sector, in the form of income growth, increased supply of products, and more demand for goods and services from industries in other provinces. More than half the country's manufacturing activity takes place in Ontario. Manufacturing exports also provide a substantial portion of the foreign earnings with which we pay our way in the world, whether for the purchase of foreign goods and services or the payment of interest and dividends on capital invested in Canada.

Ontario manufacturing is highly reliant on international trade. The estimated value of international exports by Ontario companies was $55 billion in 1985, while the province imported manufactured goods worth $60 billion. The United States is Ontario's principal trading partner, accounting for close to 90 per cent of total foreign trade.

As a key to economic growth and industrial development, Ontario's manufacturing sector must grow in both size and vitality. As a key contributor to the flow of goods into and out of Canada, a larger and more dynamic manufacturing sector is essential to improving our international trade performance. Efforts to retain and strengthen Ontario manufacturing are therefore necessary for the economic well-being of Ontario and for Canada as a whole.

The New Competitive Environment

These are not easy goals to achieve. Internationally, manufacturing has become much more competitive. Global tariff reductions have encouraged higher trade volumes, with more competitive goods seeking new markets far from home. New manufacturing nations have emerged and old ones have grown stronger. Technologies and the labour skills required to use them have multiplied dramatically around the world.

Many Ontario manufacturers have taken significant steps to adjust to the enormous pressures created by rapid change in the international trading arena. Nevertheless, there continue to be barriers to the ability of Ontario industry to compete internationally, as it must do if it is to survive in both domestic and foreign markets.

Ontario manufacturing does have some advantages in the struggle for a share of international trade. A number of Ontario companies and industries have achieved significantly higher productivity and better cost performance than their competitors abroad. Yet the cost advantage of many companies exporting to the United States has frequently been supported by the value of the Canadian dollar relative to U.S. currency, rather than by natural competitive advantages and the application of leading-edge technology.

Productivity Performance

Although many firms can claim success in improving productivity, the productivity of Canadian manufacturing as a whole has lagged behind that of the United States. The productivity gap -- estimated in the range of 25 to 30 per cent -- has remained virtually unchanged for almost two decades, and this despite the strong competitive pressures created by tariff reductions, the rationalization and internationalization of manufacturing, and other changes in the international trade environment.[1]

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[1] D.J. Daly and D.C. MacCharles, Canadian Manufactured Exports: Constraints and Opportunities (Institute for Research on Public Policy, 1986).

The productivity gap stems from a combination of factors related to the size and fragmentation of the Canadian market, the country's economic and industrial structure, and the responses of governments and companies to these conditions. (These are discussed in greater detail later in this paper.) The result is that many Canadian companies are vulnerable to competition from countries with superior technology, more intensive product research and development, higher productivity or lower costs -- vulnerable in the domestic market as tariffs and other barriers are lowered, and vulnerable in our principal export markets as world trade expands and becomes more competitive.

International competitive pressures will continue to affect Ontario manufacturers regardless of trading arrangements between Canada and the United States; a Canada-U.S. trade agreement would not alter the need for Ontario industry to adjust to the demands of the international marketplace. Tariff barriers have gradually declined under successive rounds of the General Agreement on Tariffs and Trade, necessitating adjustments for many Ontario industries over the longer term. Further reductions in tariff and non-tariff barriers await the successful completion of the Uruguay Round of trade negotiations. The prospect of a Canada-U.S. agreement, under which barriers would presumably come down much more quickly, simply heightens pressures to make fundamental adjustments over the long term and sharpens the need to respond to them flexibly in the short term as well.

A critical issue for national economic survival in international markets, therefore, is the capacity and structural ability of industry to adapt effectively and meet the standards of excellence set by our foreign competitors.

Adjustment Pressures

For companies already positioned to take advantage of open and secure access to the U.S. market, a free trade agreement would mean a vastly increased potential market, incentives to expand production and modernize plant and equipment, and opportunities to acquire state-of-the-art technology. For others, the possibility of losing tariff and other protection under a Canada-U.S. free trade arrangement would intensify the competition they are already facing from U.S. companies in the domestic market. At the same time, success in exploiting freer access to the U.S. market would depend on the ability to increase productivity, reduce costs relative to companies in the United States and in other countries that sell to the U.S. market, and develop stronger marketing capabilities there.

The statistics on trade performance indicate significant variations in the ability of Ontario manufacturers to meet these challenges. Although the trade balance between Ontario and the United States improved by $6.8 billion between 1980 and 1985, the major gains accounting for this improvement were confined to relatively few industries and much of the increase was directly associated with the falling value of the Canadian dollar.

As the balance of this paper shows, Ontario manufacturing harbours both strengths, which could ease the transition to a North American free trade environment, and weaknesses, which may require support for adjustment. Strengths and weaknesses are distributed unevenly, both within industries and among the various regions of the province. There are strongly competitive companies even in some of the vulnerable industries, and there are weaker companies in industries where the outlook is promising.

As a result, the effects of freer trade on Ontario manufacturing will likely vary by industry, by the size and strength of individual companies, and by regions and communities.

Consultation Process

It was with these considerations in mind that the Ministry of Industry, Trade and Technology began a series of consultations with the private sector to evaluate the potential strengths and weaknesses of Ontario's manufacturing industries and how they might respond to tariff reductions and a freer trade environment. The details of the agreement between Canada and the United States were not known at the time the consultations took place (during the fall and winter of 1986-87). At the same time, it was possible to recognize concerns and identify factors that would help in assessing the potential effects of an agreement once the details were known.

The results of the consultations are presented here, along with a statistical analysis of the tariff dependencies of Ontario industries. Together they provide a perspective on potential sensitivity to tariff changes. The paper also contains data on the composition of the Ontario manufacturing sector and its significance in the provincial economy, an overview of the current structure and recent trade performance of the sector, and a framework for assessing its international competitiveness.

II. THE CONCERNS SURROUNDING A CANADA-U.S. FREE TRADE AGREEMENT

Tariff-free trade with the United States would have a major impact on Ontario's manufacturing sector because of the large volume of trade flowing between Ontario and the U.S. and the current protection provided domestic manufacturers by tariffs. In some industries, other instruments, such as quotas and production safeguards, also supplement tariff protection in an important way. The comments that follow are qualitative rather than quantitative and do not attempt to determine the effects on jobs and investment under equilibrium conditions. They are based, however, on extensive consultations with the private sector, as well as on the trade performance and other data presented in parts 4, 5 and 6 of this paper.

A reduction in trade barriers could increase trade between the two countries, but on balance it is more likely to increase the competition faced by manufacturers in Ontario and elsewhere. Increased competition from U.S. imports in domestic markets would coincide with rapidly changing international competition from other countries. Some industries could be adversely affected, experiencing employment and production losses. Free trade could also affect the climate for direct investment in Ontario, either by increasing pressures on the subsidiaries of multi-nationals to justify continuing their Canadian operations to their parent companies, or by raising the level of risk and uncertainty associated with products competing in the domestic market.

Nor would improved access to the U.S. market necessarily create new opportunities for all Ontario manufacturers. Some industries are already competitive with their American counterparts and could benefit from immediate removal of U.S.

trade barriers; for others, the benefits could be less certain, or realizable only in the longer term. Success in exploiting the opportunities offered by freer access to the U.S. market would depend on the ability of Ontario manufacturers to increase productivity and reduce costs, relative to companies in the U.S. and developing countries, and to develop stronger marketing capabilities.

The major uncertainty surrounding the effect of a Canada-U.S. trade agreement on Ontario manufacturers rests on an assessment of their international competitiveness. There are considerable variations in productivity within Ontario manufacturing (both between firms and within industries), but the aggregate picture is not encouraging. On average, Canadian manufacturers tend to be high-cost producers in an increasingly competitive and productive world economy. One reason is a lack of specialization combined with production runs too short to permit competitive unit costs. Some analysts estimate that costs in Canadian plants could be reduced by as much as 15 to 25 per cent through specialization and longer production runs. This would, however, entail investment and a degree of risk for Canadian manufacturers.

The generally lower productivity and higher production costs in Canadian and Ontario manufacturing are important factors limiting exports. This is not true of all industries, of course, or even of all firms within industries where these problems have been identified. Because the strengths and weaknesses of individual industries and companies will be what determines their success in achieving international competitiveness, an industry-by-industry consultation process was necessary to assess the potential effects of freer trade.

ONTARIO'S CONSULTATIVE PROCESS

Uncertainties surrounding the details of implementation of a free trade agreement mean that this effort to assess the possible effects of changes in the Canada-U.S. trade environment on Ontario's manufacturing industries was necessarily exploratory. The Ministry of Industry, Trade and Technology undertook extensive consultations with the private sector in the fall and winter of 1986-87 to evaluate the potential strengths and weaknesses of Ontario's manufacturing industries in the context of a freer trade environment.

The industries selected for consultation are of particular importance to the provincial economy in terms of the employment they provide and the trade flows they generate. The organizations consulted cover some 28 broad industry groupings. They provide about half the total manufacturing employment in Ontario and account for about 82 per cent of total trade with the United States in manufactured goods.

The consultation process proved useful in identifying the perspective of industry on several important issues, including an assessment of the competitiveness of Ontario industries relative to their U.S. counterparts; the significance of various Canadian and U.S. tariff and non-tariff barriers; and the types of adjustment measures industry considers necessary during the transition period. Details on the organizations consulted can be found in Appendix A, Table A1.

RESULTS OF SECTORAL DISCUSSIONS

The information obtained through the consultation process revealed that Ontario manufacturers would face both challenges and opportunities in a freer trade environment. The consultation results presented here are organized under four headings, each indicating the kinds of problems or opportunities that industries, or companies within those industries, could encounter under free trade conditions.

The industry groupings are as follows:

1. AUTOMOTIVE INDUSTRY

   Motor vehicle manufacturers
   Motor vehicle parts and accessories manufacturers

2. INDUSTRIES THAT COULD BENEFIT FROM INCREASED EXPORT OPPORTUNITIES

   Iron and steel
   Sawmills
   Petrochemicals

3. INDUSTRIES THAT COULD BE SENSITIVE TO INCREASED PENETRATION OF THE CANADIAN MARKET BY IMPORTS FROM THE U.S.

   Scientific and professional equipment
   Textiles
   Miscellaneous electrical products
   Fruit and vegetable products
   Major appliances
   Household furniture
   Sugar and chocolate confectionery
   Clothing
   Footwear
   Brewery products
   Wine

4. INDUSTRIES THAT COULD EXPERIENCE MIXED RESULTS, WITH INCREASES IN BOTH EXPORTS AND COMPETITION FROM IMPORTS

   Pulp and paper
   Machinery and equipment
   Office and store machinery
   Communication equipment
   Aircraft and aircraft parts
   Electrical industrial equipment
   Distillery products
   Plastics
   Office furniture
   Cane and beet sugar
   Bakery products
   Electric wire and cable

The contributions of these groupings to Ontario manufacturing employment and total trade with the United States are illustrated in Figure 1.

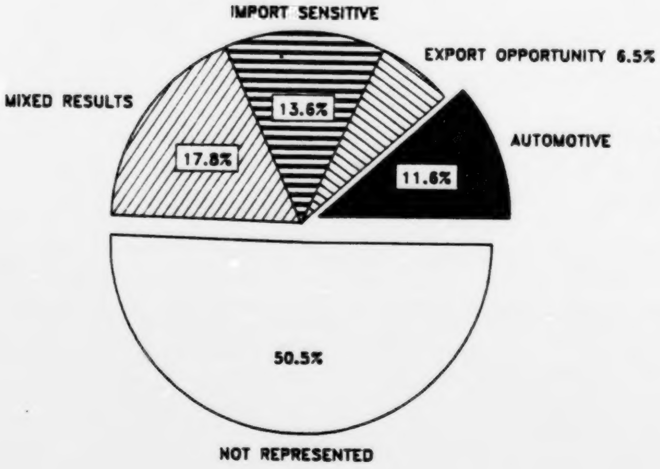
The Automotive Industry

The automotive industry is particularly important to the provincial economy and, indeed, to the national economy. Motor vehicle and motor vehicle parts manufacturers alone employ over 100,000 people in Ontario, providing 12 per cent of manufacturing employment. In total, the automotive industry employs some 113,000 people directly in Ontario, with another 117,000 employed in automotive-related industries. Because of its key role in the economy, the stability and growth of the automotive industry present special concerns. The industry is dominated by multi-nationals, with most of the major investment decisions made outside Canada.

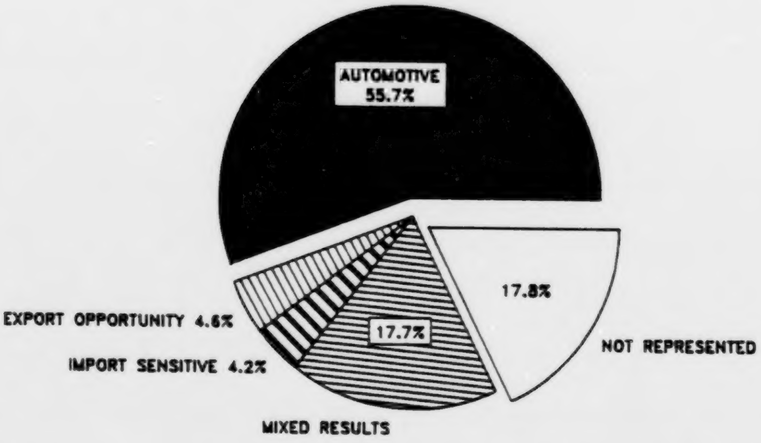
Since 1965 the Canadian industry's trading environment has been governed by the Canada-U.S. Auto Pact, which has generally been regarded as good for both countries and for automotive companies in Canada and the United States.

FIGURE 1

ONTARIO MANUFACTURING
SECTORS CONSULTED AS A SHARE OF TOTAL MANUFACTURING ACTIVITY



EMPLOYMENT



TOTAL TRADE WITH U.S.

SOURCE: MITT

As well, Canada has instituted several additional programs and policies to complement the Auto Pact and to stimulate the entry of new players in this key sector. These have included duty remission and drawback programs, industrial development incentives, tariffs on aftermarket auto parts, and an embargo on used car imports.

The Canada-U.S. trade agreement initialled on October 4, 1987 proposes substantial changes in a number of these areas. These changes could have significantly negative effects on future automotive production, investment and employment in Canada. If this were to occur, the dislocation and adjustment pressures could be substantial.

Industries with Potential Export Opportunities

In the sectoral discussions, only three industries were identified that could immediately increase exports if they were to gain freer access to the United States market. Manufacturing in these industries is resource-related, so that the relative costs of input materials and exchange rates have a significant bearing on their trade performance. Overall, this group provided about seven per cent of total manufacturing employment in 1985, along with five per cent of exports to the U.S. and four per cent of imports from the United States (Appendix A, Table A2).

In general, these industries indicated that they are competitive with their U.S. counterparts and have been successful in penetrating the U.S. market. This group already has a strong export orientation, with more than 90 per cent of total exports destined for the U.S. market. To a large extent, these industries support a free trade arrangement as a means of gaining more secure access to the important American market.

The competitive advantages identified by Ontario manufacturers include superior products and services in the case of iron and steel mills, lower production costs and more advanced technology in Canadian sawmills and planing mills, and geographical advantages in serving the large northeastern U.S. market in the case of the petrochemical industry. As well, the current exchange rate is a significant benefit for Canadian manufacturers in all these industries.

The principal problem facing iron and steel manufacturers and the sawmill industry relates to U.S. government action to limit Canadian exports. Lumber interests are currently affected by the 15 per cent federal tax on exports to the U.S., while the steel industry must accept voluntary restraints on U.S. shipments. In the case of petrochemicals, the Ontario industry suffers from a minor technology lag and lesser economies of scale in competing with U.S. companies. Nevertheless, this disadvantage is offset by the Ontario refiners' lower transportation costs, relative to U.S. suppliers on the Gulf Coast, in exporting to the northeastern U.S. market.

The removal, or at the least the reduction, of all trade barriers between Canada and the United States is favoured by these industries because of the possible opportunities for increased exports. The iron and steel industry and the sawmill and planing mill industries both favour early elimination of trade barriers. On the other hand, the petrochemicals industry would prefer to see Canadian trade barriers phased out over a period of 8 to 10 years, with Canadian anti-dumping and safeguard protections strengthened to counter unforeseen economic disruptions in the industry. Representatives of the iron and steel industry shared the view that anti-dumping laws should be strengthened. In this case, however, the concern is to prevent penetration of either the U.S. or the Canadian market by producers in a third country.

The concerns of the province of Ontario are centred on actions taken by U.S. industry and the U.S. government to limit Canadian steel exports and force up the price of Canadian lumber. If these measures were to persist after a free trade agreement was concluded, the prospects for increased exports would be correspondingly limited, and secure access to the U.S. market would not be guaranteed.

Import-Sensitive Industries

This group includes industries vulnerable to further penetration of the Canadian market by imports as a result of a bilateral free trade agreement. The industries cover a wide range of manufactured products, including scientific and professional equipment, textiles, clothing and footwear, electrical equipment, some food processing and beverages, wine and household furniture. Based on consultations with these industries, this category accounted for about 14 per cent of Ontario manufacturing employment in 1985 but only 3 per cent of exports to the United States and 6 per cent of imports from the United States (Appendix A, Table A2).

The import-sensitive group is oriented to serving the domestic market and relies heavily on Canadian trade barriers, particularly tariffs, to maintain its competitive position. As well, two important members of this group, the wine and brewery industries, operate within a framework of government sale and distribution regulations, which are considered crucial to these sectors.

At the same time, a number of firms in this group have enjoyed some success in capturing specialized U.S. market niches. However, the industries generally oppose the removal or reduction of domestic trade barriers because of the potential increase in competition from U.S. imports. As a result, industry views on a free trade agreement range from mixed to strong opposition. The potential for increasing exports, particularly as a result of specialization by firms in these industries, is not seen as sufficient to outweigh the threat posed by increased import penetration, even for those industries that now face significant trade barriers to the U.S. market.

On average, inadequate economies of scale and technology gaps limit the extent to which industries in this group can compete successfully with their U.S. counterparts. Those industries that have enjoyed export success in the U.S. market have relied on product quality, a favourable exchange rate, and/or design features to compensate for lower productivity and cost performance. This includes Ontario manufacturers specializing in small market niches for instrumentation (used in geophysical exploration, pollution detection and control, and energy management), consumer lighting fixtures, sportswear, furs, fashion clothing, workboots and winter footwear, frozen potato products, and frozen corn.

In general, this group of industries could face the most serious adjustment problems under a free trade arrangement. Not surprisingly, they are more concerned about provisions for adjusting to a new trading environment than are those industries with more potential to increase their exports. In the event of a free trade agreement, most industries in this group favour gradual reductions in Canadian trade barriers. In addition, an accelerated rate of reduction in U.S. trade barriers is critical to industrial adjustment by Ontario manufacturers in the textiles and clothing and major appliance sectors. Strengthening of safeguards and anti-dumping measures was another common concern.

The uniform elimination of tariffs across many sectors is a major issue for these industries. This is because broadly based declines in tariffs and non-tariff barriers significantly affect sectors that are linked in the production process. For example, food processing would have a major interest in the treatment accorded the agricultural industry in a trade agreement, just as clothing and apparel manufacturers have a stake in what happens to the cost of textiles. In particular, where an industry's major suppliers are not subject to the same relative change in trade conditions, cost competitiveness could be impaired.

Where restructuring of companies or industries is feasible and might lead to improved competitive performance on the part of these import-sensitive sectors, some form of financial assistance may be required. Assistance could include support for production rationalization and specialization, the acquisition of new technology, and training. As well, measures aimed at employee adjustment would be necessary to enable displaced workers to relocate and retrain. Several industries have emphasized the need for adjustment assistance for labour; they include the scientific and professional equipment, textiles and major appliance industries.

Industries with Potentially Mixed Results

Industries in this group expect that a free trade arrangement would result in some opportunities for increased exports, as well as some increases in competition from imports. These industries are situated somewhere between the export opportunity and import-sensitive categories in terms of their views about the need for adjustment measures. The group includes high technology industries, such as machinery and equipment, office and store machinery, communications equipment, aircraft and aircraft parts, electrical industrial equipment, and the plastics industry. This category provided about 18 per cent of total manufacturing employment in 1985, almost 16 per cent of exports to the United States, and more than 19 per cent of imports from the United States (Appendix A, Table A2).

These industries exhibit a range of trade orientations, from those that depend largely on the domestic market to those that rely heavily on exports. In general, the domestically-oriented industries are not competitive with their U.S. counterparts because of scale diseconomies, technology lags, and higher production costs. However, segments of these industries that are export-oriented are competitive with respect to scale, technology, and production costs. Several of the industries are already rationalized on a North American basis, as indicated by large volumes of two-way trade between Ontario and the United States.

The importance of barriers to trade between Canada and the U.S. varies considerably for these industries. For example, the newsprint and market pulp components of the pulp and paper industry face no trade barriers across the Canada-U.S. border. Other industries with relatively few barriers to trade include office and store machinery, aircraft and aircraft parts, and electrical industrial equipment. At the same time, Canadian tariffs on several components of the pulp and paper industry -- notably boxboard, containerboard, sanitary tissues, and fine papers -- are significantly higher than U.S. barriers and provide effective protection for Canadian producers. Other industries with important trade barriers favouring Canada manufacturing are plastics and electric wire and cable. By contrast, industries with significant trade barriers favouring U.S. producers include machinery and equipment, cane and beet sugar, and bakery products.

The effects of a freer trade environment would differ among these industries, and even among firms within the same industry. As a result, adjustment provisions would have to be flexible and wide-ranging; they would need to insulate Canadian industries from U.S. protectionism and ease the burden of free trade adjustment by Canadian industries. The industries in this group generally favour gradual reduction in Canadian trade barriers, accompanied by early and secure access to the U.S. market. Safeguards and anti-dumping protection are also important to several industries in this category, including machinery and equipment, electric industrial equipment, plastics, and office furniture. On the whole, industries in this group would face a range of effects from freer trade, and many could experience substantial adjustment.

POTENTIAL CHANGES WITH FREE TRADE

The industries consulted by MITT conducted 82 per cent of Ontario's trade with the United States in 1985. These sectors represent an estimated 50 per cent of total employment in Ontario's manufacturing industries. Thus, fully half the overall employment is in industries that currently account for only a small proportion of total trade with the United States.

To complete the assessment of the significance of freer trade for Ontario manufacturing, MITT examined Ontario-U.S. trade data for about 75 industries not covered by the consultations. This process considered the current trade position of Ontario manufacturing industries; the relative growth of exports to, and imports from, the U.S. over the period 1980 to 1985; and estimates of existing levels of protection in Canada and the United States. This analysis cannot provide a comprehensive description of an industry's international competitiveness, but it does provide a perspective on the likely performance of Ontario manufacturers if a Canada-United States free trade agreement were concluded.

In total the industry consultations and data analysis involved assessing the prospects for 112 manufacturing industries as defined by Statistics Canada at the 3-digit SIC level. Based on estimates for 1985 from Statistic Canada's Employment, Hours and Earnings Survey, these industries had total employment of some 877,800 people in Ontario. This compares to estimated average employment levels in Ontario manufacturing of over 1 million in 1985 according to the Labour Force Survey, also carried out by

Statistics Canada. The difference between the two figures is accounted for largely by differences in data collection methods. The Labour Force Survey of Households uses occupation type as a means of allocating employees to a sector, while the data included in the Employment, Hours and Earnings Survey are collected on an industry establishment basis. As a result, many persons engaged in small manufacturing operations are not accounted for in the latter survey. This study uses the more detailed data provided by the 1985 survey of Employment, Hours and Earnings to extrapolate industry data from the Census of Manufacturers. The following table summarizes the observed variations in employment data.

Ontario
Manufacturing Employment
1985

Group	Employment Earnings & Hours	Labour Force Survey[1]
Automotive	110,493	
Export Opportunity	59,986	
Import Sensitivity	423,980	
Mixed Results	220,076	
Sub-Total	814,517[2]	
Total All Manufacturing	877,800	1,008,000

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[1] Detailed breakdown of this total is not published on an SIC basis.

[2] Does not total because of confidential data for some industries.

Those industries not included in the initial series of consultations but examined separately as just described were grouped under the same categories used to describe the potential sensitivities to freer trade with the United States. (The analysis of trade performance is set out in Appendix A, Table A3.)

In general, the industries covered by this analysis are less oriented to trade with the United States than those covered by MITT's industry consultations. In 1985, these industries accounted for almost 14 per cent of Ontario's total exports of manufactured goods to the United States and 18 per cent of imports. To some extent, this relatively weak trade orientation may be the result of current high levels of protection, particularly in the form of Canadian tariffs; however, by implication the tariffs are significant instruments in maintaining employment in these industries.

At least 54 of the 75 industries examined would be considered import-sensitive on the basis of their relatively weak trade performance and the higher levels of Canadian tariff protection they enjoy. For example, data from the federal Department of Finance and the U.S. Department of Commerce show that Canadian tariffs are approximately twice those imposed by the United States. In 1986, the average Canadian duty paid on dutiable imports of manufactured products from the United States was 10.1 per cent, compared to 3.4 per cent paid on dutiable imports into the United States from Canada.

In both Canada and the United States, the most highly protected industries are in the textiles and clothing sectors. In Canada, high tariff protection is extended to a broad range of industries, including tobacco products, beverages, furniture, and fabricated metals. Over one-third of Ontario's manufacturing industries are protected by duties of greater than 10 per cent. The United States gives only 12 industries this degree of protection (Appendix A, Table A3). The protected industries cover a wide range of products across all major manufacturing groups and account for some 35 per cent of Ontario's total manufacturing employment.

By contrast, only 2 industries of the 75 covered in this analysis -- steel pipe and tube mills, and miscellaneous petroleum and coal products -- might benefit from increased export opportunities as a result of freer trade. In the case of steel, the extent of the benefits would depend upon the willingness of the United States to forgo its current insistence on limiting Canadian exports. Both industries showed improvements in trade performance with the U.S. between 1980 and 1985. In both cases overall U.S. protection is greater than Canadian levels. Overall, these Ontario industries represent a relatively small proportion of the industrial base, with some 2,908 employees in 1985.

JOBS SENSITIVE TO FREER TRADE

Tables 1 and 2 summarize the potential changes that could result from a freer trade arrangement for manufacturing. Table 1 groups Ontario manufacturing industries on the basis of the likely effects of a Canada-U.S. agreement. Table 2 provides an overview of the size and share of provincial manufacturing held by industries that could be faced with similar opportunities or problems. These tables combine the results of MITT's industry consultation and the subsequent statistical analysis of trade performance data for 75 industries.

From Table 2, it is apparent that a major portion of Ontario's manufacturing industries may face substantial adjustment in an environment of freer Canada-U.S. trade: 74 industries have been judged vulnerable to increased pressure from U.S. imports following from an agreement. These industries employ 400,000 Ontario workers.

Manufacturing in Ontario is composed of a large number of highly diverse industries and firms with varying competitive

TABLE 1
Ontario Manufacturing Industries Facing Similar Prospects from Tariff Reductions

Group*	Industries Consulted**	Estimate of Sectors Affected***
Automotive	. Motor Vehicle Mfgrs. . Motor Vehicle Parts & Accessories Mfgrs.	. Truck Body & Trailer Mfgrs. . Auto Fabric Accessories
Export Opportunities	. Iron & Steel Mills . Sawmills, Planing Mills & Shingle Mills . Petrochemicals	. Steel Pipe and Tube Mills . Misc. Petroleum & Coal Products Mfgrs.
Import Sensitive	. Scientific & Professional Equipment . Textiles . Mfgrs of Misc. Electrical Products . Fruit & Vegetable Processors . Major Appliance Mfgrs. . Household Furniture Industries . Sugar & Chocolate Confectionery Industry . Clothing Manufacturers . Footwear Manufacturers . Brewery Products Industry . Wine Industry	. Misc. Chemical Industries . Misc. Mfgr. Industries NES . Misc. Metal Fabricating Industries . Publishing Only . Rubber Products . Wire & Wire Products Mfgrs. . Hardware Tool & Cutlery Mfgrs. . Publishing and Printing . Mfgrs. of Small Electrical Appliances . Glass & Glass Products Mfgrs. . Commercial Refrigeration & Air Cond. Mfgrs. . Commercial Printing . Meat & Poultry Products . Misc. Non-Metallic Mineral Products . Misc. Paper Converters . Mfgrs. Pharmaceuticals & Medicines . Mfgrs. of Lighting Fixtures . Sporting Goods & Toy Industries . Railroad Rolling Stock Industry . Metal Stamping, Pressing & Coating . Paint and Varnish Mfgrs.

TABLE 1 (cont'd)

Group*	Industries Consulted**	Estimate of Sectors Affected***
Import - Sensitive (cont'd)		. Iron Foundries . Abrasives Mfgrs. . Jewellery & Silverware Industry . Mfgrs. of Toilet Preparations . Paper Box and Bag Mfgrs. . Boatbuilding and Repair . Copper & Copper Alloy Rolling etc. . Misc. Furniture & Fixture Mfgrs. . Flour & Breakfast Cereal Products . Heating Equipment Mfgrs. . Misc. Vehicle Mfgrs. . Feed . Clay Products Mfgrs. . Boiler & Plate Works . Veneer & Plywood Mills . Platemaking, Typesetting Industries . Ornamental & Architectural Metal . Signs & Displays Industry . Luggage, Handbag, & Small Leather Goods . Dairy Products . Coffin & Casket Industry . Wooden Box Factories . Cordage & Twine . Shipbuilding & Repair . Leaf Tobacco Processors . Asphalt Roofing Mfgrs. . Fabricated Structural Metal . Canvas Products, Cotton & Jute Bags . Electric Lamp & Shade Mfgrs. . Leather Gloves . Ready Mix Concrete Mfgrs. . Tobacco Products . Machine Shops

TABLE 1 (cont'd)

Group*	Industries Consulted**	Estimate of Sectors Affected***
Mixed Import & Export Results	. Pulp & Paper Mills . Machinery & Equipment Mfgrs. . Office & Store Equipment Mfgrs. . Communications Equipment Mfgrs. . Aircraft & Aircraft Parts Mfgrs. . Electrical Industrial Equipment Mfgrs. . Distillery Products Industry . Plastics Industry . Office Furniture Industry . Cane & Beet Sugar Industry . Bakery Products Mfgrs. . Mfgrs. of Electric Wire & Cable	. Petroleum Refineries . Smelting & Refining . Agricultural Implement Industry . Aluminum Rolling, Casting etc. . Mfgrs. of Household Radio & T.V. . Misc. Wood Industries . Cement Manufacturers . Metal Rolling, Casting etc. NES . Mfgrs. of Soap & Cleaning Compounds . Sash, Door & Other Millwork Products . Fish Products . Leather Tanneries . Fur Goods . Concrete Product Mfgrs. . Mfgrs. of Mixed Fertilizers . Lime Manufacturers . Stone Products Mfgrs.

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* Industries included in Automotive, Export, & Mixed Group ranked on basis of 1985 exports to the U.S.Industries included in the Import Group ranked on basis on 1985 imports from U.S.

** Includes meetings with 29 separate industry associations up to January 20, 1987. These groups cover 28 broad industry categories and represent 37 individual manufacturing subsectors.

*** Includes those industries that have not been part of consultative process to January 20, 1987.

TABLE 2

Estimated Shares of Ontario Manufacturing Industries[1] Facing Similar Prospects from Tariff Reductions

	Sectors Consulted[2]				Estimate of Sectors Affected[3]				Total for Manufacturing Groups[4]			
		1985 Percentage Share of Total Ontario Manufacturing				1985 Percentage Share of Total Ontario Manufacturing				1985 Percentage Share of Total Ontario Manufacturing		
Group	Number of Industries	Employment (estimated)	Exports to U.S.	Imports from U.S.	Number of Industries	Employment (estimated)	Exports to U.S.	Imports from U.S.	Number of Industries	Employment (estimated)	Exports to U.S.	Imports from U.S.
		(%)	(%)	(%)		(%)	(%)	(%)		(%)	(%)	(%)
Automotive	2	11.6	60.4	50.9	2	1.0	0.2	0.2	4	12.6	60.6	51.1
Export	4	6.5	5.4	3.7	2	0.3	1.0	0.2	6	6.8	6.4	3.9
Import	20	13.6	2.8	5.7	54	34.7	7.3	13.6	74	48.3	10.1	19.3
Mixed	11	17.8	15.9	19.4	17	7.3	5.0	4.0	28	25.1	20.9	23.4
Total Industries	37	49.5	84.5	79.7	75	43.3	13.5	18.0	112	100.0	100.0	100.0

1. Based on 3 digit SICs

2. Includes meetings with 29 separate industry associations up to January 20, 1987. These groups cover 28 broad industry categories and represent 37 individual manufacturing subsectors. (See Appendix D1 (Part II)).

3. Includes those industries that have not been part of consultative process to January 20, 1987.

4. Columns may not sum to 100 percent due to missing values for a number of industries and some differences between the industry definitions used for consultations and the trade analysis.

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capabilities. Some firms in the industrial sectors that appear weak on the basis of this assessment are currently doing well and would continue to prosper even with increased competition. Similarly, in strong industries there are individual firms that are weak and vulnerable. On the balance, the number of firms and jobs that would be potentially vulnerable gives cause for concern about the size and feasibility of the adjustment process.

A significant proportion of Ontario manufacturers expect to see increased export opportunities in the short term as a result of a free trade agreement with the United States. This includes firms in both the "export opportunities" and "mixed results" industry groups. In total, the industries in these groups provide about 32 per cent of total manufacturing employment in the province, or roughly 280,000 jobs. Of the industries covered in the initial series of consultations, close to half were in the "export" and "mixed" industry groups and therefore expected at least some increase in export opportunities if a free trade agreement is implemented.

The potential scope of employment dislocation and/or job adjustment (requiring, for example, skills training or relocation assistance) is therefore quite large when the sectors anticipating some degree of change are added together.

REGIONAL ECONOMIC SENSITIVITIES

The effects of freer trade with the United States would be felt particularly in central Ontario because that is where manufacturing activity is concentrated. However, other regions would also be affected, and in some cases the effects could be relatively greater than in the central region because of higher regional economic dependence on certain key industries. There are also a number of communities throughout Ontario that are highly reliant on one or two industries or firms, particularly in such areas as food processing, textiles, wood and paper products, and automotive production. Table 3 indicates the relative distribution across Ontario of manufacturers in the four industry groups identified in the consultations: the automotive sector, industries with potential export opportunities, import-sensitive sectors, and sectors that could experience both export growth and import sensitivity.

The potential impact on the automotive sector would, in absolute terms, be most significant in central Ontario (as indicated in the upper portion of Table 3). Motor vehicles and related equipment and accessories account for over one-quarter of total manufacturing employment in southwestern Ontario, where the strongest regional effects would likely be felt (as indicated in the lower half of Table 3).

TABLE 3

ONTARIO MANUFACTURING
REGIONAL SENSITIVITY TO FREER TRADE

DISTRIBUTION OF EMPLOYMENT, 1985
BY ONTARIO REGION

	CENTRAL	EASTERN	N. EASTERN	N. WESTERN	S. WESTERN	ALL ONTARIO
	(%)	(%)	(%)	(%)	(%)	(%)
AUTOMOTIVE	66.4	1.4	0.3	0.1	31.8	100.0
EXPORT OPPORTUNITY	65.6	5.0	16.9	3.6	8.9	100.0
IMPORT SENSITIVITY	73.3	9.7	1.6	0.8	14.7	100.0
MIXED RESULTS	74.0	10.1	3.2	3.0	9.8	100.0
TOTAL REGION	72.1	7.9	1.7	1.5	14.5	100.0

REGIONAL SHARES OF EMPLOYMENT, 1985

	CENTRAL	EASTERN	N. EASTERN	N. WESTERN	S. WESTERN	ALL ONTARIO
	(%)	(%)	(%)	(%)	(%)	(%)
AUTOMOTIVE	11.1	2.1	1.0	0.6	26.3	12.0
EXPORT OPPORTUNITY	6.9	4.9	33.2	16.4	4.7	7.6
IMPORT SENSITIVITY	46.1	55.6	19.0	21.2	45.7	45.5
MIXED RESULTS	27.0	33.6	21.6	46.5	17.8	25.3
TOTAL REGION[1]	100.0	100.0	100.0	100.0	100.0	100.0

1. Regional Distribution may not sum to 100 because of gaps in employement data.

Industries with potentially greater export opportunities are also concentrated in central Ontario. However, from a regional standpoint, the resource-based economies of the northeastern and northwestern parts of the province are concentrated in the production of primary steel, steel pipes and tubes, and sawmill products. These provide over 23 per cent of manufacturing employment. A free trade arrangement would have to include positive assurances on market access and freedom from the harassment of U.S. trade laws for those industries if it is to benefit northern Ontario.

The potential effects on central, eastern, and southwestern Ontario are likely to be in the industries that are import-sensitive and those that anticipate mixed results from freer trade. Generally, where opportunities for increased exports did occur, they would be in industries expecting mixed results.

The distribution of Ontario's manufacturing employment at the regional level is presented in Table 4. More detailed breakdowns of industry employment, including distribution at the county level, is provided in Appendix B, Tables B1 to B6. Using these preliminary estimates of employment distribution, the likely regional considerations arising from bilateral freer trade are presented in Tables B7 through B11.

TABLE 4
ONTARIO MANUFACTURING
REGIONAL DISTRIBUTION OF INDUSTRIES

INDUSTRY	CENTRAL ONTARIO	EASTERN ONTARIO	NORTH- EASTERN ONTARIO	NORTH- WESTERN ONTARIO	SOUTH- WESTERN ONTARIO	1985 TOTA ONTA EMPL
	(percentage of Ontario total)					(Num
Food and Beverage	75	7	1	0	17	80,9
Tobacco Products	-	-	-	-	-	
Rubber and Plastic	79	4	1	0	16	43,3
Leather Industries	61	28	1	0	11	13,1
Textile	57	32	4	0	7	15,7
Knitting Mills	70	12	2	0	16	6,1
Clothing Industries	86	8	1	0	6	22,8
Wood	46	7	18	17	13	21,4
Furniture & Fixture	79	7	2	0	13	18,3
Paper & Allied	49	18	14	14	6	40,9
Printing & Publishing	72	10	1	1	16	60,7
Primary Metal	78	5	11	0	6	57,2
Metal Fabrication	72	7	1	0	19	55,1
Machinery	74	8	2	1	15	46,7
Transportation Equip.	68	3	1	1	28	126,2
Electrical Products	79	14	0	0	7	67,5
Non-Metallic Minerals	63	10	2	0	25	14,5
Petroleum & Coal Prod.	93	0	0	0	7	12,3
Chemicals & Chemical	74	8	4	0	14	55,0
Miscellaneous Mfg.	78	8	1	1	12	42,3
TOTAL ALL INDUSTRIES	72	8	4	2	15	877,8

e Estimated
- Not Available

Source: Statistics C

Central Ontario

The manufacturing base of the central region is highly diverse relative to other areas of the province. The 20 largest industries located there account for just over half of total regional employment. These are mostly manufacturers of food products, rubber and plastics, automotive and aircraft products, printing and publishing, and electronic equipment (Appendix B, Table B7).

The potential economic implications of tariff removal would be largely negative for major industries in the central region because of the concentrations of import-sensitive industries there. Import sensitivities would be greatest in the area of Metropolitan Toronto and west through Peel and Waterloo counties. There could be some offsetting gains from industries where the effects of freer trade are expected to be mixed, particularly in the machinery and electronics sectors.

The implications of freer trade in automotive products and the removal of Canadian safeguards could be most significant for Durham and Halton counties and, to a lesser degree, Metropolitan Toronto.

Eastern Ontario

Manufacturers of shoes, textiles, paper and allied, machinery, electrical equipment, and chemicals dominate the manufacturing base of eastern Ontario. The 20 largest industries in the region account for close to 65 per cent of regional employment, though no single industry is clearly dominant (Appendix B, Table B8).

Although some import sensitivities are apparent, the effects of freer trade would likely be more mixed in the east than in other areas of the province, because of the presence of the electrical and machinery sectors in the Ottawa-Carleton region.

The counties of Hastings and Stormont appear to be most sensitive to freer trade, as they have larger concentrations of industries that are likely to experience increased competition from imports. However, some offsetting gains are possible in the industries expecting mixed results in Hastings County and from potential export opportunities for steel producers in Stormont.

Northeastern Ontario

The economy of the province's northeastern region is based on a concentration of resource-based manufacturers of wood, paper, and primary metal products. Close to 40 per cent of regional manufacturing employment is found in sawmills, pulp and paper plants, and iron and steel mills. In total, the 20 largest industries in the northeast account for more than 66 per cent of employment in regional manufacturing. Most activity is located in the districts of Algoma, Sudbury, and Nipissing (Appendix B, Table B9).

The region could experience some gains from freer trade with the United States because of the presence of large resource-based industries, some of which anticipate new export opportunities. At the same time, there are import-sensitive industries engaged in the production of semi-processed and finished goods that could experience increased competitive pressure from the United States. This would likely be most threatening for smaller firms in the region.

Northwestern Ontario

Wood and paper products are the major industries in the Thunder Bay and Kenora districts. Sawmills and pulp and paper production alone account for over 55 per cent of regional manufacturing employment (Appendix B, Table B10).

Manufacturing activity in the northwest is highly concentrated. The top 20 industries account for close to 83 per cent of regional employment, by far the highest concentration of any economic region in the province. Although sawmills and pulp and paper producers could enjoy some export gains, there are a number of areas of import sensitivity. Competitive pressures resulting from freer trade would be felt largely in shipbuilding and printing and publishing. As well, manufacturers of semi-processed and finished goods in Thunder Bay could have some sensitivities.

Southwestern Ontario

The automotive sector is highly important to this region's industrial base, providing more than one-quarter of regional manufacturing employment. Overall, the top 20 industries in the region account for close to 66 per cent of regional manufacturing activity. However, outside the automotive sector no one industry is dominant. In fact, the region possesses a highly diverse manufacturing base consisting of food, beverages, printing and publishing, primary metals, metal fabricating, and rubber and plastics production (Appendix B, Table B11).

Industrial activity is widely distributed throughout the region. The major areas of industrialization lie along the Lake Erie corridor, including Essex, Middlesex, Kent, and Perth counties.

Southwestern Ontario manufacturers are competing largely in semi-finished or finished goods production. As a result, import sensitivity could be substantial.

The critical aspect for southwestern Ontario is the potential impact on the automotive sector. Vehicles and parts production are important to the economies of both regions and communities throughout the southwest.

III INDUSTRIAL POLICY IMPLICATIONS

Major industrial policy objectives in the current trade negotiations are to encourage competition and stimulate trade. Expanded competition would lead to industrial rationalization, resulting in lower costs and higher productivity. As part of this process the more efficient firms would expand, the less efficient would contract, and some might be forced out of business. The adjustment and reallocation of resources that would accompany free trade are anticipated by some econometric analyses to be relatively smooth and inexpensive.

However, the costs of restructuring and rationalization predicted by econometric models may not be fully stated, nor can such models anticipate constraints on management decision-making that might impede the adjustment process. For example, many manufacturers will be able to change production systems to adopt the latest technologies, but many others have financial characteristics or management perceptions that could delay this process. These rigidities could increase the costs of adjustment substantially.

The consultations with industry revealed considerable differences among firms and industries in terms of how free trade would likely affect them and the types of adjustment assistance that they believe might be needed.

Improved access to the U.S. government procurement market and the elimination of the threat of U.S. restrictions on Canadian exports were identified as particularly important to industries with the potential to gain from a freer trade arrangement. In addition, some of these industries argued that some positive adjustment assistance will be needed, possibly including help with marketing and distribution, and financial support for the acquisition of technology and staff training.

Industries vulnerable to increased import penetration would face the most serious adjustment problems and would likely require the widest range of support measures during the transition to freer trade. The industries consulted indicated the importance of phasing out current tariff protections gradually and at a slower pace than the United States. In some instances, these industries have also suggested the retention of certain long-term safeguards to ensure that domestic manufacturers are not overwhelmed by imports. Adjustment assistance might have to include financial support for market research, the acquisition of new technology, management training, and employee relocation and retraining.

The potential impact of freer trade on industries that expect mixed results is more difficult to assess. These industries forecast both gains and losses as a result of growth in bilateral exports and imports. For firms already fully rationalized with good economies of scale, the impact of freer trade could be less marked. Among small and medium-sized companies, the need to restructure to meet intensified competition from imports will probably be greater.

The discussions with industry confirmed the considerable range of likely effects of freer trade and the consequent need for a spectrum of industrial adjustment and assistance. Assistance would therefore need to be tailored to the particular circumstances confronting each sector and the firms within it.

At the same time, in implementing a trading arrangement, special consideration would have to be given in both tariff and adjustment policies to cultural and defence industries, regional development, community economic stability, and social needs.

The manufacturing sector is essential to the Ontario economy as a major source of income generation, employment, technology diffusion, and export earnings. However, there are serious concerns about the international competitive performance of Ontario industries, particularly with respect to their lower productivity levels and higher production costs.

The Ontario economy and the manufacturing sector depend on the United States as both a market for exports and a source of inputs and technology. The vital nature of this trading relationship is all the more apparent in light of the constraints imposed on Canadian industries by small and fragmented domestic markets. If Ontario industries are to compete successfully in the international marketplace, there is a need for free and certain access to much larger markets to reap the benefits associated with scale economies. The consequences of future U.S. protectionist measures closing off this large market have been a major factor influencing the federal government's pursuit of a freer trade arrangement.

The current trade initiative also adds to the pressures on Ontario manufacturers to adjust to a rapid series of major changes in global markets. Many Ontario industries have been adapting, but financial and operational constraints have limited the implementation of many necessary adjustments. The possibility of future changes, including a new round of tariff reductions under the auspices of GATT, indicates a need for caution and careful planning to maintain Canada's and Ontario's future competitive capabilities in the manufacturing sector.

The heavy dependence on exports of the automotive and resource-based industries is a key issue. Neither of these industries is expected to grow rapidly in the next few years, and countries outside North America are becoming strong competitors. Japan and Korea have been particularly successful in capturing a larger proportion of the North American market for automobiles and auto parts, and this trend will likely continue.

Whatever the final shape of the proposed Canada-U.S. free trade arrangement, the necessity will remain for Canadian manufacturers to raise productivity, lower costs and prices, introduce new technologies and products, and compete and market more effectively in the domestic, U.S. and other foreign markets. The slow growth in productivity and the slow rate of manufacturing innovation are of particular concern, requiring long-term solutions and measures to stimulate innovation and adaption.

DEVELOPING ADJUSTMENT MEASURES

The successful conclusion of a Canada-U.S. trade arrangement would involve the elimination of the remaining tariff barriers between Canada and the United States over a period of years. To the degree that current U.S. tariffs and customs formalities now restrain Canadian exports, Canada would gain more open and certain access to the U.S. market.

At the same time, there would possibly be less freedom for governments in Canada to subsidize or support particular firms and industries in difficulty or in need of development assistance. The removal of non-tariff barriers could also limit the ability of governments to exercise procurement preferences. In the design and implementation of adjustment assistance, the ability of governments in Canada to maintain the kind of policy flexibility appropriate to the special characteristics of the economy will be critical to the effectiveness of the adjustment process.

Forecasting the response of firms to freer trade is complicated because a large portion of Ontario's manufacturing industry consists of U.S. subsidiaries governed by decisions made outside Canada. In a free trade environment, some of these subsidiaries may be able to specialize or obtain regional mandates that would reduce costs and enable them to compete. Some others could well be phased out if it is more efficient to supply Canada from U.S. operations or from offshore sources.

To gain any benefit from a free trade arrangement, some firms will need to make changes in marketing, production, employment, technology, and skills training. Some of these changes would have been unavoidable in any event as international trade competition increased and GATT negotiations succeeded in introducing further multilateral tariff reductions. Whatever their impetus, these changes will entail costs and will place additional responsibilities on Canadian industry and its management.

Table 5 shows a number of broad response categories. It indicates the different types of market conditions that might be faced by Ontario industries under freer trade conditions and the corresponding nature of the adjustment assistance that each group might require.

TABLE 5
IMPACT ADJUSTMENT SUMMARY
PRIMARY ADJUSTMENT ASSISTANCE REQUIREMENTS BY IMPACT GROUP

	Impact Group			
Type of Adjustment Assistance	Automotive	Export Opportunities	Import-Sensitive	Mixed Results
Restructuring	Requires Special Attention and Safeguards		X	X
Productivity and Costs			X	X
Technology		X	X	X
Marketing		X	X	X
Labour		X	X	X

The table shows that most industries would likely require essentially the same mix of support programs. Because of wide variations in competitive capabilities among firms in the same group, it may be necessary to make adjustment assistance programs generally available, with decisions as to which firm should receive support made case-by-case according to specific criteria.

Industrial and trade policy would need to aim at strengthening international industrial competitiveness. The generation of higher incomes and levels of employment would not necessarily be automatic. Improving our ability to earn sufficient foreign currency to pay our way in the world (including payments for foreign technology and capital under conditions of intensive industrial restructuring) may not be a smooth process. Dependence on the U.S. market would likely increase, as would the vulnerability of Canadian industries (such as the automotive and resource sectors) to U.S. business cycles.

A good economic case could also be made for retaining the flexibility to protect some infant industries. There may be valid reasons to protect strategic industries that are subsidized in most of the industrialized countries Canada competes with; these strategic industries include electrical industrial equipment, wire and cable, and transportation and communications equipment.

Special consideration might also have to be given to industries that are subject to special regulations or safeguards. This point has been emphasized by the Ontario government in relation to the Auto Pact.

IV SIZE AND IMPORTANCE OF MANUFACTURING IN THE PROVINCIAL ECONOMY

INCOME AND EMPLOYMENT

Manufacturing is a strategic component of the Ontario economy, contributing to provincial shipments, employment, regional development, trade, and technological development.

Ontario depends more highly on manufacturing for income than the rest of Canada does. In 1985, Ontario manufacturing industries accounted for almost 30 per cent of real provincial product; in the rest of Canada, manufacturing industries accounted for only 16 per cent of real domestic product (as indicated in Figure 2). In 1985, Ontario manufacturing industries employed an estimated 878,000 people, or over 20 per cent of total provincial employment.[1] (See also Appendix C, Table C1.)

A large part of Canada's manufacturing is concentrated in Ontario. While the province accounts for 40 per cent of total Canadian real domestic product, Ontario's manufacturing output represents almost 56 per cent of Canada's total production.

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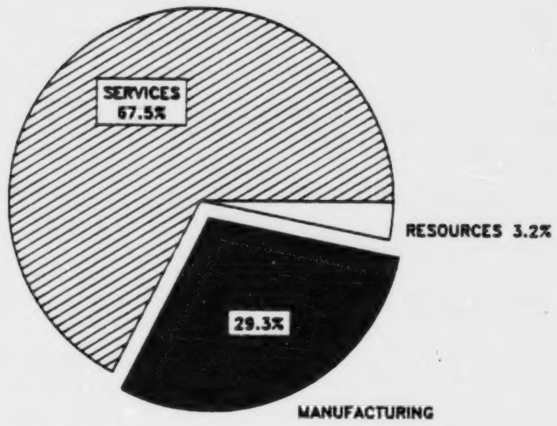
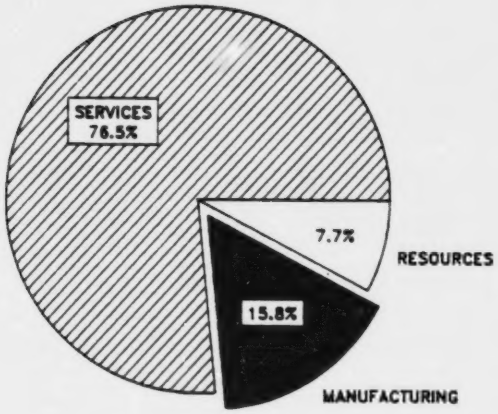
[1] For an explanation and breakdown of this figure, see page 25.

FIGURE 2

SHARES OF REAL OUTPUT, 1985



ONTARIO



REST OF CANADA

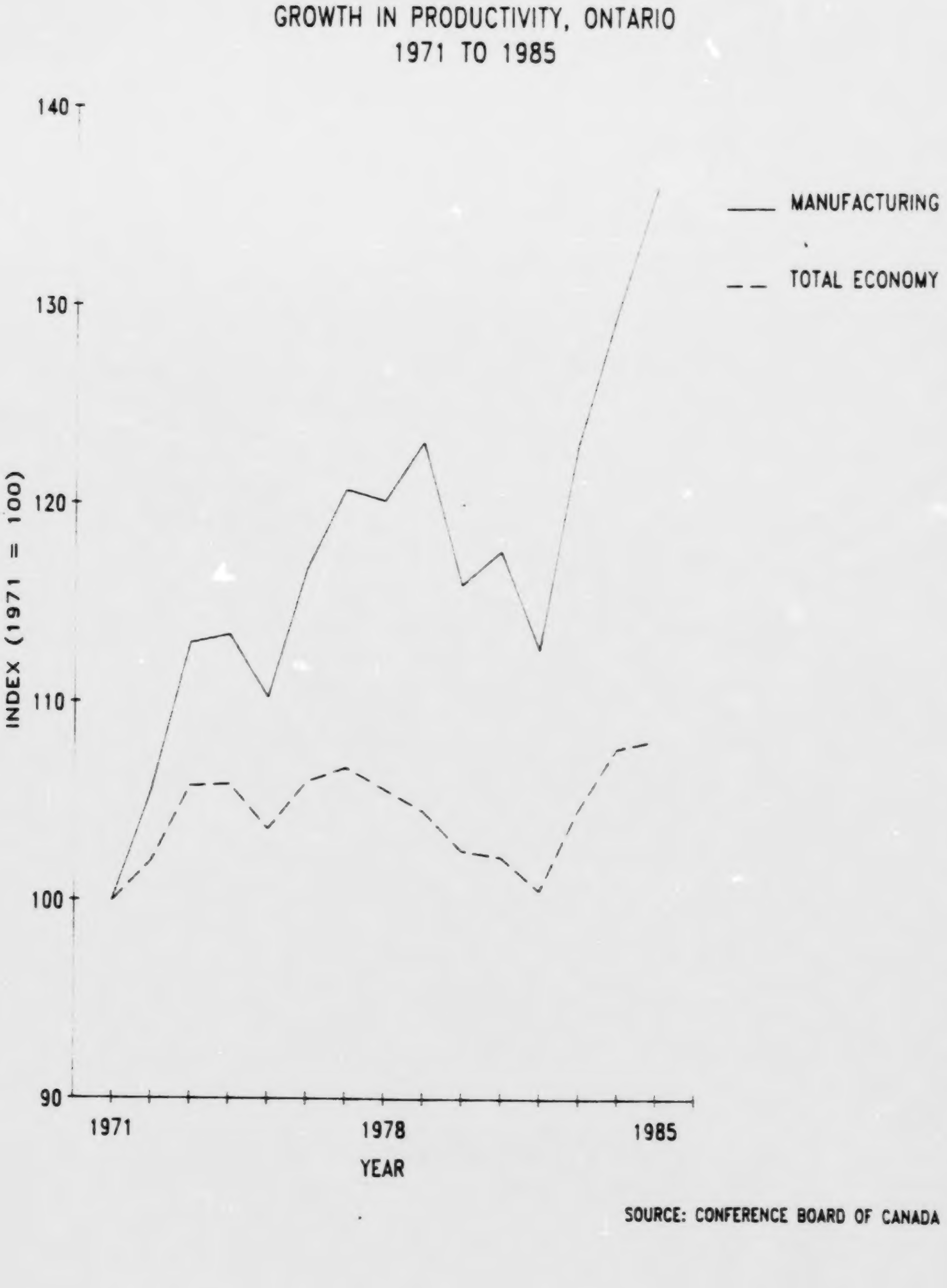
SOURCE: STATISTICS CANADA

Growth in productivity in Ontario manufacturing has led productivity growth in the overall provincial economy (as shown in Figure 3). Between 1971 and 1985, real output expanded by close to 50 per cent, while employment rose by approximately 10 per cent. This reflects a longer-term trend in manufacturing common to most industrialized nations. As production in manufactured goods has increased, employment has been relatively static and, in some cases, has even declined.

INTERNATIONAL TRADE OF MANUFACTURED GOODS

Approximately 60 per cent of Canada's total exports of manufactured goods and 64 per cent of imports are attributable to Ontario. The United States is the province's major export market for manufactured goods, accounting for $50.2 billion, or 92 per cent of total export sales in 1985. The United States is also the principal source of Ontario's imports, accounting for 83 per cent. Historically, Ontario has accumulated a deficit in manufacturing trade with the United States; in 1981 the imbalance was over $7 billion. However, since 1983 the province has run a moderate trade surplus with the United States in manufactured goods, amounting to $899 million in 1984 but declining to $332 million in 1985. This improvement was due largely to significant growth in exports of motor vehicles and parts to the United States. Between 1983 and 1985, automotive exports to the United States increased at an average annual rate of more than 26 per cent (Table C2).

FIGURE 3



SOURCE: CONFERENCE BOARD OF CANADA

REGIONAL DISTRIBUTION OF MANUFACTURING

Manufacturing employment is concentrated heavily in the major urban centres of central and southwestern Ontario. These regions provide over 85 per cent of total provincial manufacturing employment and account for the largest portion of employment in each sector. At the same time, other industries have significant levels of employment in other regions of the province. For example, the leather, textiles, and electrical products sectors have significant employment concentrations in eastern Ontario. Similarly, the wood, paper and allied products and primary metal segments provide significant shares of the employment in northeastern and/or northwestern Ontario.

An estimated 72 per cent of Ontario manufacturing employment is located in central Ontario (Appendix B, Table B1). Close to three-quarters of this total is in the regions of Metropolitan Toronto, Hamilton-Wentworth, Peel, Waterloo, and Niagara. The manufacturing base of central Ontario is diverse, but it is dominated by the larger industries (Appendix B, Table B2). Central Ontario manufacturers represent over 80 per cent of total provincial employment in the production of meat and poultry products, rubber, men's clothing, commercial printing, aircraft and parts, refined petroleum, pharmaceuticals and medicines, and scientific and professional equipment.

Southwestern Ontario is the second largest manufacturing region in the province, accounting for close to 15 per cent of total employment. Manufacturing activity is concentrated largely in the counties of Essex (including Windsor and Leamington), Middlesex (including London), Lambton (including Sarnia) and Kent (including Chatham). The largest concentrations of provincial employment are in the production of beverages, plastics, metal stamping, pressing and coating, machinery, motor vehicles, and motor vehicle parts (Appendix B, Table B6).

The remaining regions of the province together account for just over 13 per cent of provincial manufacturing employment. Nevertheless, each represents an important source of production in particular areas. Eastern Ontario including Ottawa-Carleton, Hastings and Renfrew, is a significant producer of textiles and apparel, electrical products, and chemicals (Appendix B, Table B3).

Industries in northeastern and northwestern Ontario include sawmills, plywood mills, pulp and paper mills and, in northeastern Ontario, large iron and steel and chemical manufacturers (Appendix B, Tables B4 and B5). As well, in northwestern Ontario, Thunder Bay is an important location of Ontario shipbuilding.

LINKAGES WITH OTHER SECTORS

Manufacturers are both producers of goods and markets for the resource and service industries, as well as for other companies in the manufacturing sector. Similarly, manufacturing generates new products and processes to improve productivity and provides markets for technological development and innovation. Disseminating technologically advanced products and processes throughout the economy is particularly important in efforts to improve international competitiveness. Improved productivity is also crucial to competition in a global market. The production of goods requiring less technological sophistication is increasingly being taken over by newly industrialized countries, where labour costs are relatively low. Ontario's manufacturing industries have consequently moved to production of goods that require more advanced technologies and skilled labour.

V TRADE AND THE STRUCTURE OF ONTARIO'S MANUFACTURING INDUSTRY

OUTPUT AND EMPLOYMENT BY SECTOR

A large portion of Ontario manufacturing output and employment is accounted for by a few major industries. The top 10 industries in Ontario accounted for over 40 per cent of provincial output and one-third of provincial manufacturing employment in 1985 (as indicated in Table 6; see also Appendix C, Table C3). These 10 industries experienced an average annual growth rate of almost 5 per cent in real output from 1980 to 1985, compared to only about 2 per cent for the rest of Ontario's manufacturing industries. The top 10 industries enjoyed a net gain in employment of over 6,000 jobs over this period, while the rest of Ontario's manufacturing industries suffered a net loss of more than 38,000 jobs.

The relatively strong performance of this group of industries is associated mainly with growth in the automotive sector, which dominates manufacturing in Ontario, with over 18 per cent of total output and almost 12 per cent of employment. Motor vehicle manufacturers alone contributed more than 11 per cent of the provincial product and employed some 42,000 people in 1985. Motor vehicle parts manufacturers led growth in the automotive sector between 1980 and 1985. Output expanded at an average annual rate of over 11 per cent while employment increased by almost 16,000 jobs over the period.

TABLE 6
ONTARIO MANUFACTURING TOP 10 INDUSTRIES SHARES OF REAL DOMESTIC PRODUCT AND EMPLOYMENT (RANKED BY RDP, 1985)

	Real Domestic Product		Employment	
		Percentage Change		Absolute Change
Industry	1985e	1980-85*	1985e	1980-85
	(%)	(%)	(%)	(Number)
Motor Vehicle Manufacturers	11.2	7.5	4.8	6,334
Motor Vehicle Parts & Acces.	7.1	11.2	6.8	15,601
Iron and Steel Mills	5.0	-0.9	4.4	(7,987)
Machinery & Equip. Mfrs.	3.6	-3.6	3.6	(11,086)
Communications Equip. Mfrs.	3.0	7.0	3.0	(640)
Commercial Printing	2.7	5.1	3.4	3,804
Beverages	2.6	0.7	1.5	692
Plastic Fabricating	2.5	6.2	2.7	2,982
Pulp and Paper Mills	2.4	3.1	2.2	(3,745)
Office & Store Mach. Mfrs.	2.2	7.9	0.9	55
Total Top 10 Industries	42.2	4.7	33.2%	6,010

e Estimated

* Average Annual Percentage Change

Source: Statistics Canada

Several important manufacturing industries are linked to the province's resource base, including iron and steel mills and pulp and paper mills. The largest of these, iron and steel, accounted for 5 per cent of provincial product and employed almost 39,000 people in 1985. Between 1980 and 1985, output from iron and steel mills declined at an average annual rate of 0.9 per cent, while employment declined by 8,000 jobs.

Pulp and paper mills provided 2.4 per cent of total manufacturing output in 1985 and over 19,000 jobs. Over the 1980 to 1985 period, pulp and paper mills expanded output at an average annual rate of 3 per cent, or slightly above the provincial average, despite a net loss of more than 3,700 jobs.

Several Ontario manufacturing industries are significant producers of technology related goods. These include manufacturers of communications equipment, office and store machinery, and machinery and equipment. With the exception of machinery and equipment, these industries increased real output by over 7 per cent per year between 1980 and 1985, while experiencing relatively stable levels of employment. Real output for machinery and equipment manufacturers declined by almost 4 per cent per annum, with a drop of 11,000 jobs between 1980 and 1985.

Other significant contributors to Ontario manufacturing output and employment include the commercial printing, beverages, and plastic fabricating industries, each producing about 3 per cent of provincial output in 1985.

COMPOSITION OF TRADE

Ontario manufacturers are highly reliant on international trade. On a world basis, exports by Ontario firms amounted to $54.5 billion in 1985, while imports of manufactured goods reached a total of $60 billion. Table 7 displays 1985 trade volumes with the United States for the major Ontario industries (see also Appendix C, Table C4).

Despite the importance of international trade for Ontario manufacturers, the major market for the province is the Canadian domestic market. Based on the most recent data, Ontario itself absorbed about 52 per cent of the total shipments of the province's manufacturers in 1984. A further 17 per cent of shipments went to other provinces (Appendix C, Table C5).

Exports to the United States accounted for over 32 per cent of total Ontario manufacturing shipments, and imports from the United States represented 32 per cent of the apparent provincial consumption of manufactured goods in 1985. Overall, these export and import propensities have been increasing in recent years (Appendix C, Table C6).

TABLE 7
ONTARIO MANUFACTURING
TOP 10 INDUSTRIES
TRADE WITH THE UNITED STATES, 1985

Industry	1985 Total Trade with the US*	Percent Total Manufacturing
	($ Millions)	(%)
Motor Vehicle Manufacturers	29,384	29.4
Motor Vehicle Parts & Accessories	26,279	26.3
Misc. Machinery & Equip. Mfrs.	5,123	5.1
Office & Store Machinery Mfrs.	4,437	4.4
Pulp & Paper Mills	2,376	2.4
Mfrs. of Industrial Chemicals	2,211	2.2
Communications Equip. Mfrs.	2,133	2.1
Scientific & Professional Equip.	2,089	2.1
Iron and Steel Mills	1,803	1.8
Aircraft & Aircraft Parts Mfrs.	1,444	1.4
Top 10	77,278	77.3
Total All Industries	100,013	100.0

* Exports plus imports.

Source: Statistics Canada.

To analyze the trade of Ontario manufacturers, the industries have been grouped by market orientation:

- Two-Way Trade - Industries with a relatively high export orientation to the U.S. market and a relatively high degree of competition from U.S. imports. Specifically, exports to the U.S. represent more than 19 per cent of total industry shipments while imports from the U.S. account for more than 22 per cent of apparent provincial consumption.[2]
- Export Oriented -Industries with a relatively high export orientation to the U.S. market but a lower degree of competition from U.S. imports. Specifically, exports to the U.S. account for more than 19 per cent of total industry shipments while imports from the U.S. account for less than 22 per cent of apparent provincial consumption.
- Import Competing - Industries with a relatively low export orientation to the U.S. market but a higher degree of competition from U.S. imports. Specifically, exports to the U.S. account for less than 19 per cent of total industry shipments while imports from the U.S. account for more than 22 per cent of the apparent provincial market.
- Low Trade - Industries with relatively little trade between Ontario and the United States. Specifically, exports to the U.S. represent less than 19 per cent of total industry shipments while imports from the U.S. account for less than about 22 per cent of the apparent provincial market.

Table 8 shows the relative distribution of Ontario manufacturing industries within these trade groups. (See Appendix C, Table C7 for details on these groups).

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[2] Based on average export and import propensities for Ontario manufacturing industries, excluding the motor vehicle and automotive parts industries.

TABLE 8
ONTARIO MANUFACTURING INDUSTRIES GROUPED BY TRADE ORIENTATION, SHARES OF EMPLOYMENT AND TRADE WITH THE U.S.

Trade Group	Number of Industries	1985e employment (%)	1985 Trade with U.S. Exports (%)	1985 Trade with U.S. Imports (%)
Two-Way Trade	24	36.2	79.4	81.9
Export Oriented	16	13.3	11.4	2.6
Import Competing	18	14.6	2.6	9.3
Low Trade	41	31.0	4.3	4.5
Unallocated	13	5.0	2.3	1.7
Total Manufacturing	112	877,800	$50.2B	$49.8B

e Estimated

Source: Statistics Canada

Two-Way Trade Industries

Two-way trade industries provided over 300,000 jobs in Ontario, along with 79 per cent of manufactured goods exports to the U.S. and 82 per cent of imports from the U.S., in 1985. The automotive sector dominates the economic activity of this group of industries.

A number of other important industries in this group produce capital goods, including

- machinery & equipment
- communications equipment
- scientific & professional equipment
- aircraft & aircraft parts
- office & store machinery

Other large two-way trade industries include

- rubber products
- petrochemicals
- metal fabricating

In 1985, trade balance between Ontario and the United States in these industries resulted in a one billion dollar deficit. However, between 1980 and 1985 their U.S. trade balance, as a proportion of total trade, improved by over 18 per cent -- largely as a result of shifts in trade in the automotive sector.

Export-Oriented Industries

Export-oriented industries provided more than 100,000 jobs in Ontario in 1985, along with 11 per cent of exports to the United States and 3 per cent of imports from the U.S. in manufactured goods.

The majority of export-oriented industries are resource-based. They include:

- iron and steel mills
- pulp and paper manufacturers
- sawmills

Though this group accounts for a relatively small proportion of Ontario manufacturing employment, it does contribute significantly to Ontario's manufacturing trade balance, as indicated by its $4.4 billion dollar trade surplus with the U.S. in 1985. Between 1980 and 1985 this group's trade balance with the U.S., as a proportion of its total trade, declined by about 2 percentage points. This was the result of more rapid growth in imports from the U.S. of pulp and paper and iron and steel products; by comparison, growth in exports from Canada in similar industries was slower.

Import Competing Industries

In 1985, import competing industries provided close to 123,000 jobs in Ontario, along with 3 per cent of manufactured goods exports to the U.S. and 9 per cent of imports from the United States.

The import competing group includes a wide array of industries and subsectors producing

- electrical goods
- chemicals
- non-metallic minerals
- textiles
- printing and publishing

This group improved its trade balance as a proportion of its total trade with the U.S. between 1980 and 1985, but its total 1985 trade deficit of over $3 billion in 1985 illustrates its vulnerability to imports.

Low Trade Industries

Low trade industries together provided some 260,000 jobs in Ontario, 4 per cent of exports to the U.S., and 5 per cent of manufactured goods imports from the U.S. in 1985.

This is the largest category of Ontario industries and includes 41 industries related to the manufacture of

- textiles
- leather goods and clothing
- metal fabrication
- food products
- consumer goods

Although this category includes some industries with significant U.S. trade volumes, domestic sales are of relatively higher significance. Many of the industries in this category are also protected by higher tariff barriers in both Canada and the United States.

As a group, these industries improved their U.S. trade balance, as a proportion of their total trade with the United States, by 11 percentage points between 1980 and 1985. Nevertheless, in 1985 the group's trade deficit was about $117 million.

The industries with larger trading volumes that contribute to improved trade performance improvement include

- plastic fabricating
- commercial printing
- major appliances
- household furniture

Despite improvements in these sectors, all except furniture suffered trade deficits with the United States in 1985.

VI COMPETITIVE PERFORMANCE

A dominant feature of Ontario's (and indeed Canada's) industrial structure has been the size and persistence of the manufacturing productivity gap relative to the United States. This gap has remained essentially unchanged since the early 1970s, despite tariff reductions under the Kennedy and Tokyo Rounds of GATT, the product rationalization many firms have undertaken, and the pressure of increased market competition.

There are significant variations in manufacturing productivity and cost performance at both the company and the industry level. Some Canadian industries, such as the primary steel and automotive sectors, have higher levels of productivity and lower operating costs than their U.S. competition. Overall, however, there are continuing problems with productivity levels in Canadian manufacturing.

These problems are of particular concern in view of current trends in international trade. World trade in manufactured products has been growing since the Second World War. At the same time, international competition in manufactured goods has increased with the reduction of tariff and non-tariff barriers and the emergence of newly industrializing countries as significant contributors to international trade. Some of these countries have rapidly adopted new technologies, significantly increasing their capacity for high-quality manufacturing. As well, these countries tend to have labour and other costs substantially below those in North America and Europe. As a result, Canadian manufacturers are coming under increasing pressure from abroad at a time when many firms do not have a strong competitive base from which to meet these challenges. (See Appendix D, Tables D1 to D13, for detailed comparisons of Canada's international competitive position.)

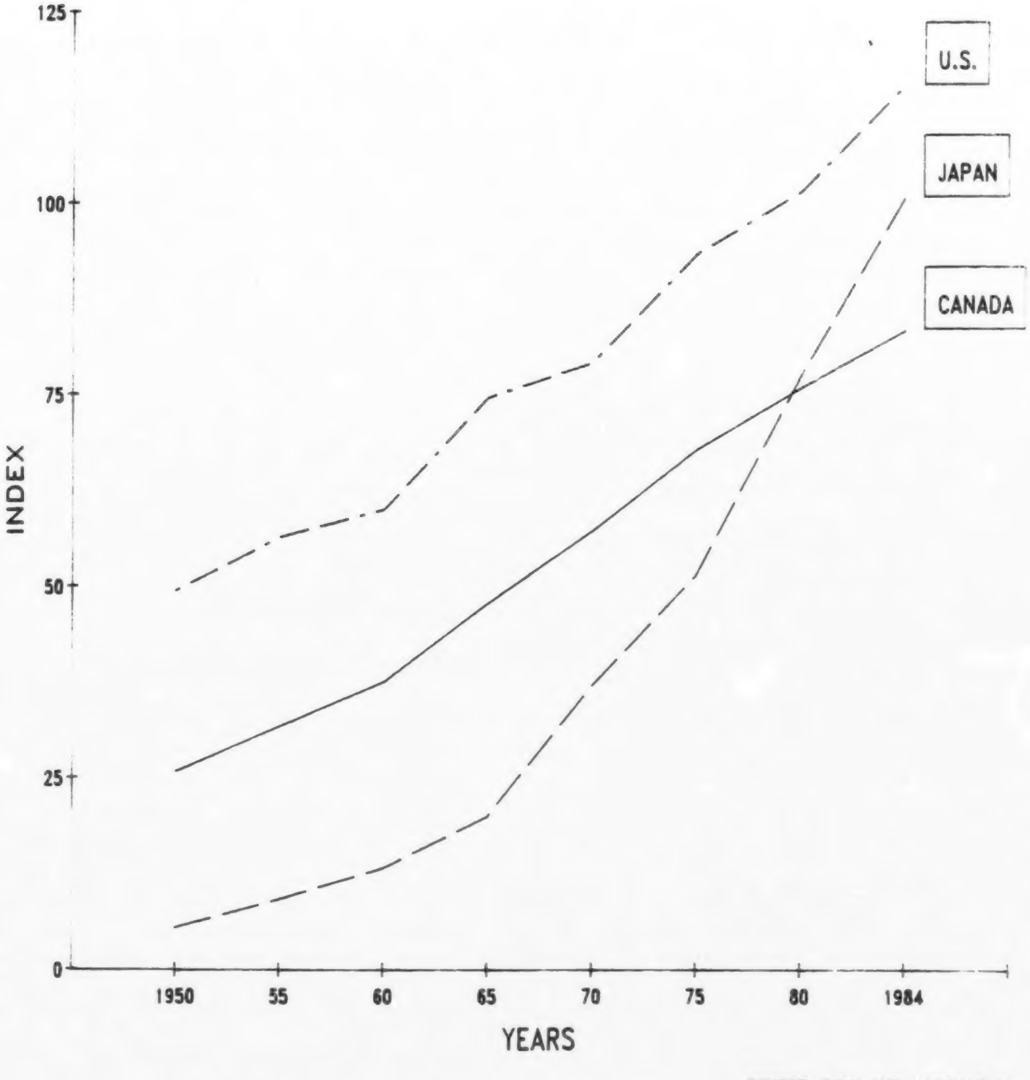
FACTORS CONTRIBUTING TO COMPETITIVENESS

International competitiveness is influenced by both quantitative and qualitative considerations. Quantitative considerations include efficiency in production (or productivity), the relative cost of inputs, and international exchange rates. Qualitative considerations include the type of technology employed, the speed with which new technology is adopted, and such factors as product design, quality, and servicing.

Canadian manufacturers are estimated to be only about 70 per cent as efficient as their American counterparts. This Canada/U.S. productivity gap has remained relatively stable, at between 25 and 30 per cent, for more than a decade (see Figure 4).

Canada's productivity performance has also declined dramatically by comparison with Japan and most of Europe. In the 1950s, the level of output in Japanese manufacturing was approximately one-quarter the Canadian level.

FIGURE 4



OUTPUT PER HOUR, MANUFACTURING
CANADA, U.S. AND JAPAN
SELECTED YEARS, 1950-1984
(U.S. 1977=100)

SOURCE: DALY AND MACCHARLES

The increase in output per hour in Japan since then, however, has been so rapid that the situation is reversed. Overall, Japanese productivity exceeded Canadian levels in about 1980 and now stands roughly half-way between that of Canada and the United States. Furthermore, the productivity of large Japanese exporters has been estimated to be more than 25 per cent higher than that of Canadian firms of comparable size. Similarly, in 1960 output per hour in many European countries was 10 to 25 per cent below that in Canada. Now manufacturers in European countries have productivity levels equal to or greater than those in Canada (see Table 9).

TABLE 9
MANUFACTURING PRODUCTIVITY (OUTPUT PER HOUR) CANADA AND SELECTED COUNTRIES
(U.S. 1977 = 100)

YEAR	CANADA	UNITED STATES	JAPAN	WEST GERMANY
1950	25.8	49.4	5.4	17.0
1960	37.5	60.0	13.2	34.9
1970	57.3	79.2	37.0	62.1
1980	76.0	101.7	77.4	95.0
1984	83.5	115.6	100.8	107.2

Source: Daly and MacCharles

Output per hour is lower in Canada than in the U.S., despite higher capital/labour ratios. Moreover, small Canadian plants produce lower output per employee than foreign-controlled plants of the same size and larger domestic plants. However, only about one-third of the Canada/U.S. productivity gap has been attributed to differences in plant size. The industry average conceals much variation between sectors, but the persistence of the gap is nevertheless significant.

There are considerable disparities between Canadian and U.S. industries in terms of productivity. The aggregate data point to continuing problems across a broad range of industries and firms, but in several instances Canadian manufacturing industries have productivity equal to or greater than that of their competitors, in the United States. Table 10 shows that in 1984 three Canadian manufacturing industries were estimated to be fully competitive with their U.S. counterparts, while five others were within about 10 per cent of U.S. levels of output per employee.

TABLE 10
OUTPUT PER EMPLOYEE
CANADA AS A PERCENTAGE OF U.S.

	Canada as % of U.S.		
SECTOR	1972	1980	1984
Food and Beverage	61	59	59
Tobacco Products	47	52	49
Rubber and Plastics	66	88	96
Leather Industries	66	83	92
Textiles	76	77	68
Knitting	42	52	46
Clothing	75	83	89
Wood	70	85	106
Furniture and Fixtures	63	70	83
Paper and Allied	98	102	95
Printing and Publishing	68	86	78
Primary Metals	71	70	69
Metal Fabricating	66	84	85
Machinery	77	104	100
Transportation Equipment	68	73	105
Electrical Products	90	98	85
Non-metallic Minerals	98	105	97
Petroleum and Coal	65	62	50
Chemicals and Chemical Products	62	71	66

Source: Data Resources of Canada

In 1984 the hourly rate for Canadian production workers was about 17 per cent below U.S. rates - well above the level justified by the 30 per cent difference in productivity between the two countries. Compensation in Japan was fully 40 per cent lower than that in Canada (see Figure 5). Between 1973 and 1984 Canada experienced a combination of high wage growth and low output growth compared to the United States and Japan.

Canadian unit labour costs in manufacturing also increased faster than those in the U.S. between 1973 and 1984, but price increases were offset to some extent by a substantial depreciation of the Canadian dollar.

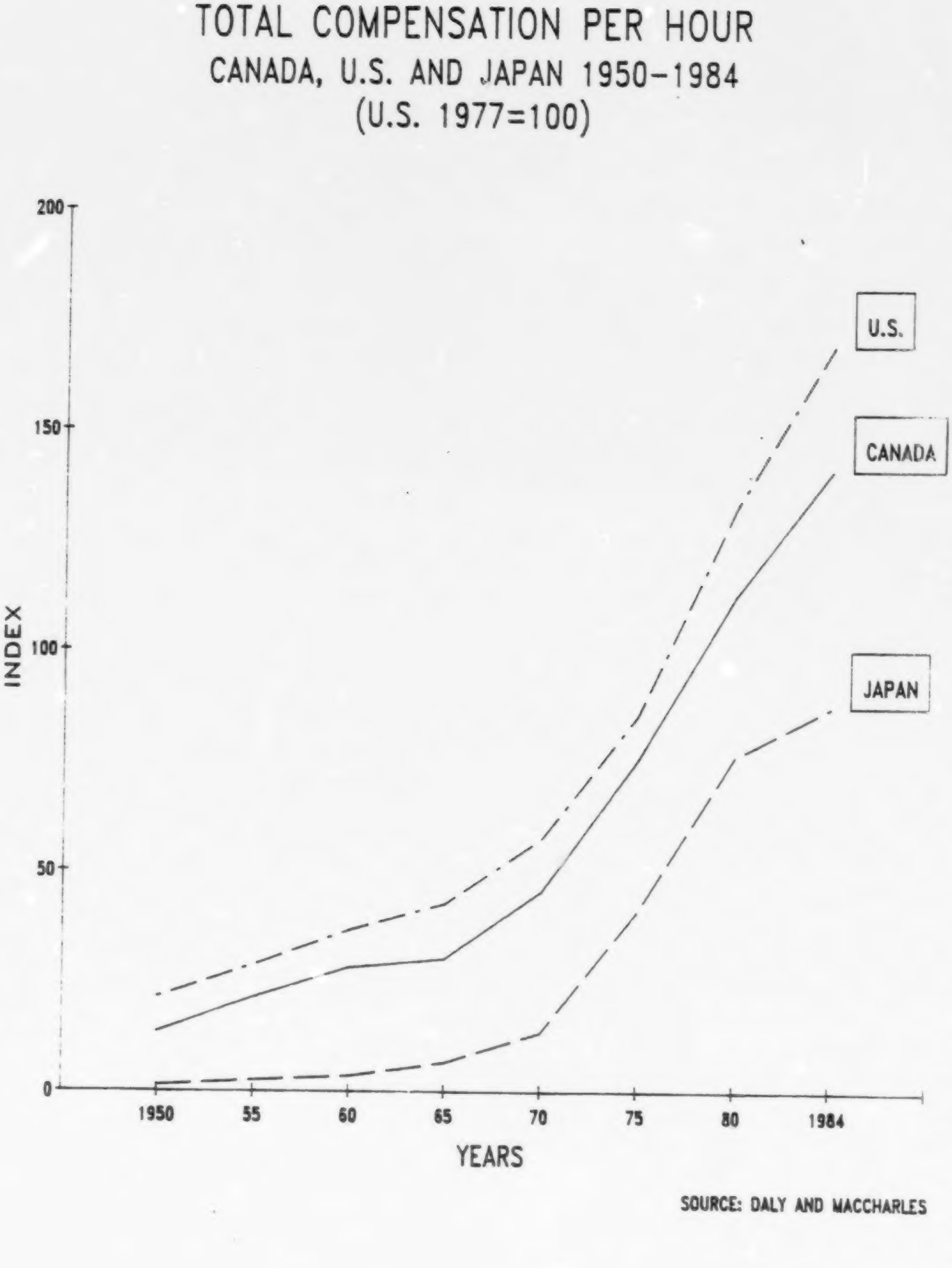
Canada's unit labour costs (in U.S. dollars) were better (i.e., lower) than costs in the United Kingdom but worse than those of our major trading partner, the United States (as shown in Table 11 and Figure 6).

TABLE 11
MANUFACTURING UNIT LABOUR COSTS CANADA AND SELECTED COUNTRIES
(U.S. 1977 = 100)

YEAR	CANADA	UNITED STATES	JAPAN	WEST GERMANY
1950	52.8	43.4	26.8	25.9
1960	75.0	61.1	26.6	31.1
1970	78.5	72.7	36.4	51.1
1980	148.1	130.5	98.2	174.3
1984	169.2	146.5	86.8	119.9

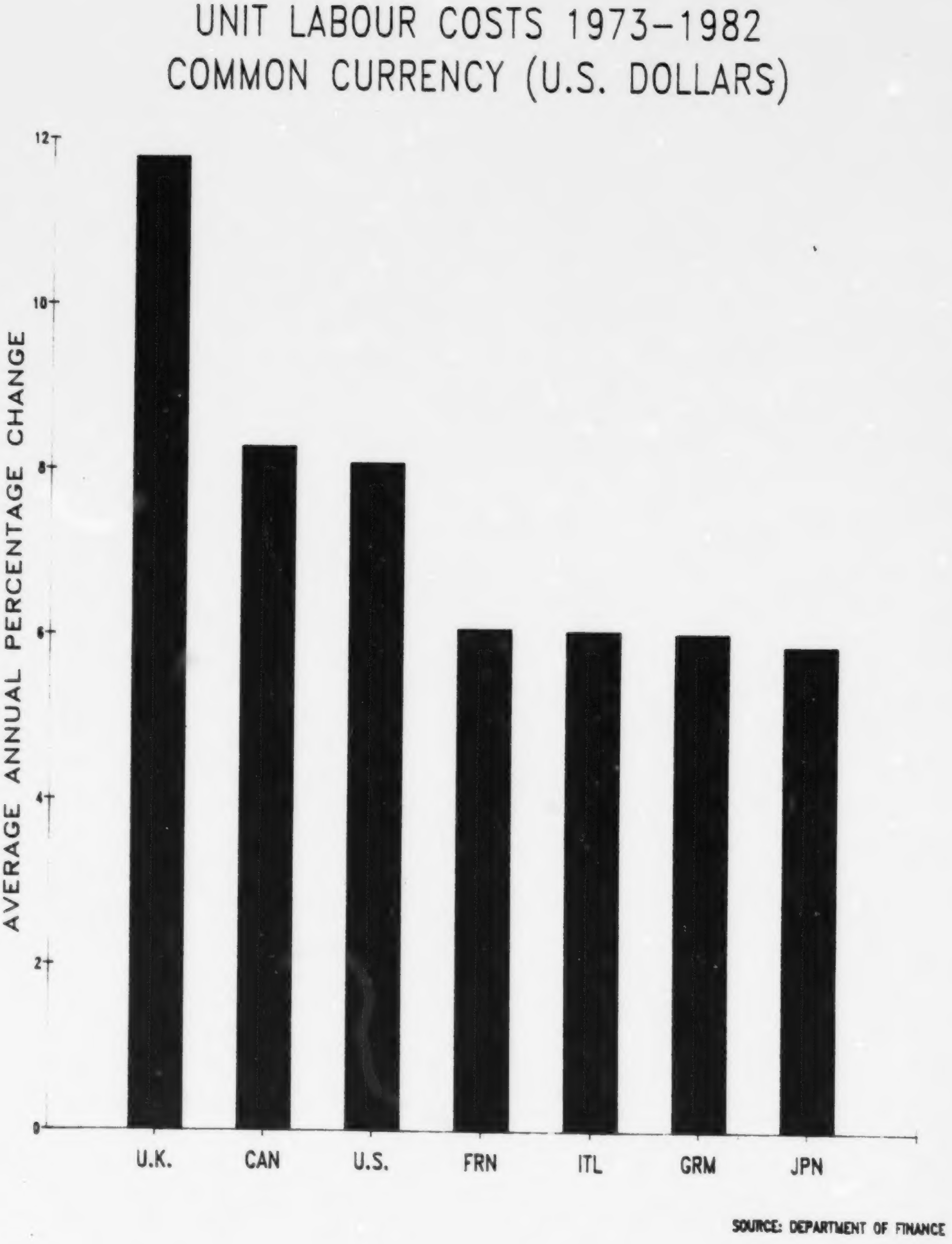
Source: Daly and MacCharles

FIGURE 5



SOURCE: DALY AND MACCHARLES

FIGURE 6



SOURCE: DEPARTMENT OF FINANCE

STRUCTURAL CHARACTERISTICS

The characteristics of Canada's industrial structure contribute to an enduring productivity disadvantage relative to our major international competitors, especially the United States. A dominant feature of the Canadian economy is a high degree of foreign ownership and control; in many cases this has led to a truncation of key corporate functions.

Other structural limitations include those resulting from sub-optimal size and scale in many operations, low levels of R & D and slow diffusion of technology, and relatively high levels of financial leverage in many Canadian sectors. Frequently, constraints are also associated with the lack of an internationally competitive orientation on the part of Canadian and Ontario firms.

Foreign Ownership and Control

In the past, many foreign-owned manufacturing firms established themselves in Ontario (and elsewhere in Canada) to gain tariff-free access to the Canadian market and, in some instances, to gain access to cheaper inputs and control over natural resources. In some cases, however, these subsidiaries did not gain a mandate to export or develop unique products of their own. They were simply truncated versions of their parent companies, set up to supply the Canadian market. Even so, these plants were in a position to benefit from ready and cheap access to the management and technological knowledge of their parent corporations and affiliates. This helped sustain their productivity at levels higher than those of many of their Canadian-controlled counterparts.

Despite successive rounds of tariff reduction under the General Agreement on Tariffs and Trade and the withdrawal of some subsidiaries, foreign control of manufacturing in Ontario remains high. In the early 1980s about 15 per cent of the manufacturing establishments in Ontario were foreign-controlled. U.S. interests alone controlled about 12 per cent of establishments, which in turn accounted for 39 per cent of manufacturing employment and 45 per cent of manufacturing value-added and shipments. Corporate data for 1983 show that U.S. firms controlled close to 4 per cent of the manufacturing corporations in Canada and 40 per cent of total sales.

Despite being more productive overall than Canadian-controlled establishments, many U.S. subsidiaries are less productive than their parent companies or affiliates in the United States. This is clearly not always the case, of course, as with some automotive assembly plants and chemical plants. At the same time, competitiveness remains highly sensitive to exchange rate changes. The competitive disadvantages of Canadian operations have to some degree been moderated by the weakening in the exchange value of the Canadian dollar in recent years. This has tended to offset the productivity gap and allowed Canadian unit costs and prices to be competitive.

It is possible that the liberalization of trade and investment between Canada and the United States could result in the further withdrawal of some U.S. manufacturing branch plants, along with related R & D facilities. It has been suggested that this movement would be reinforced by the increased economies of scope to be gained in the United States.[3] This would most likely occur in the metalworking, machine building, and electrical and electronic industries that are converting to computer-integrated manufacturing.

Some U.S. subsidiaries have been given world or North American product mandates and have become specialized high-volume producers and exporters in recent years. It appears, however, that they have not done so well in this regard as Canadian-controlled firms.[4]

It is not possible to predict what further withdrawal of U.S. subsidiaries is likely as a result of a free trade arrangement or increased competition from outside North America. Much will depend on the basic competitiveness of the Canadian economy relative to that of the United States and other countries, as well as on the strategies and decisions of individual U.S. corporations.

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[3] J. Baranson, "Assessment of Likely Impact of a U.S. Canadian Free Trade Agreement Upon the Behaviour of Industrial Subsidiaries in Canada", Ontario Ministry of Industry, Trade and Technology, 1985.

[4] Daly and MacCharles.

Scale of Operations

The small size and fragmented nature of the Canadian market, combined with past protectionist trade policies, has tended to favour the development of relatively small-scale manufacturers in many industries. The characteristics often associated with these firms include a strong domestic market orientation, relatively lower productivity, and higher unit costs than their international counterparts.

Many Ontario plants are smaller than their American counterparts, and part of the productivity gap between Canada and the United States is attributable to size diseconomies. In many instances larger domestic manufacturers suffer from the same productivity and cost problems because of product specific diseconomies. Companies with large plants relative to the size of the domestic market have tended to produce a wide range of products to maintain capacity utilization levels. Doing so entails short production runs as well as in-house production of a variety of semi-finished materials, components and services. These operations thus tend to be more integrated but less specialized, with lower cumulative volumes on a continuous basis than their U.S. competitors. In addition, Ontario and Canadian firms often experience diseconomies in marketing, finance, advertising, and other central corporate functions.

A number of recent studies show that product-specific diseconomies, rather than diseconomies at the company level, are a major factor affecting Canada's relatively poor productivity and cost performance.[5] This is often the case for the smaller Canadian-controlled plants that provide over 20 per cent of total provincial manufacturing employment. This means that costs in Canadian plants could be lowered significantly through increased specialization and longer production runs. It has been suggested that cost reductions in the order of 15 to 25 per cent could be realized through greater specialization.[6]

Research and Development

Low spending on research and development has also been identified as a factor limiting Canada's competitiveness. Business enterprises' Expenditures on R & D by business enterprises in Canada amounted to about $2.3 billion in 1983, compared to $63 billion in the United States, $22 billion in Japan, and $14 billion in West Germany. Canada's spending on R & D as a proportion of GNP also lags behind that of every major industrial nation; the figure for Canada is about 1.3 per cent, compared to 2.7 per cent for the United States. Between 1975 and 1983, Canadian R & D performance improved somewhat relative to our major competitors, with the exception of Japan. Canadian expenditures increased at a greater rate over this period than those of the United States and West Germany, although at a slower rate than Japan's.

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[5] Daly and MacCharles.
[6] Daly and MacCharles.

As indicated in Table 12, in 1984 manufacturing accounted for close to 77 per cent of total industrial R & D spending in Canada, with expenditures of about $2.2 billion. The telecommunications equipment industry accounted for the largest expenditures, $556 million, followed by the aircraft and parts industry at $282 million. Other large outlays occurred in business machines, refined petroleum and coal products, electronic products, and other chemicals industries.

TABLE 12
CANADA
TOTAL R & D EXPENDITURES BY MANUFACTURING INDUSTRY, 1984

Industry	$ millions
Food, beverages and tobacco	76
Rubber and plastic products	18
Textiles	14
Wood	17
Pulp and paper	64
Primary metals (ferrous)	28
Primary metals (non-ferrous)	95
Metal fabricating	24
Machinery	71
Aircraft and parts	282
Other transportation equipment	82
Telecommunication equipment	556
Electronic parts and components	59
Other electronic equipment	135
Business machines	166
Other electrical products	84
Non-metallic mineral products	16
Refined petroleum and coal products	162
Drugs and medicines	57
Other chemical products	140
Scientific and professional equipment	28
Other manufacturing industries	16
Total manufacturing	2,190
Total all industries	2,859

Source: Statistics Canada

Canadian-controlled firms tend to devote a higher percentage of their sales to R & D than foreign-controlled companies have done. Table 13 shows this was the situation in all but the chemical-based sector in 1984. To a large extent, R & D expenditures by business enterprises in Canada are also concentrated in a relatively few firms, including Bell Canada Enterprises, Atomic Energy of Canada, Pratt and Whitney, IBM, Ontario Hydro, Imperial Oil, Hydro Quebec, MITEL, and CAE Industries.

TABLE 13
R & D EXPENDITURES AS A PERCENTAGE OF SALES BY INDUSTRY AND COUNTRY OF CONTROL, 1984

Industry	Canadian	Foreign	Total
	%	%	%
Mining	0.98	0.46	0.74
Chemical-based	0.53	0.65	0.61
Wood-based	0.33	0.27	0.32
Metals	0.83	0.72	0.81
Machinery & transport equipment	4.73	0.85	0.32
Electrical & electronic products	14.49	2.70	5.59
Other manufacturing	0.92	0.64	0.77
Services	1.22	0.67	1.15
Total	1.52	0.92	1.22

Source: Statistics Canada

While Canadian firms tend to focus more attention on developing new products, the R & D efforts of foreign subsidiaries are more often aimed at adapting existing products to the Canadian market and implementing cost-reducing innovations at the plant level.

It is generally agreed that the adoption of modern, or best-practice, technology in Canada lags behind the state of the art in other countries, including the United States, Japan, and West Germany. For example, the proportion of Canadian manufacturing companies using computer-aided production systems is only half that of the United States and even lower than that of Japan.

Some analysts have argued that the low levels of R & D by foreign (mainly U.S.) subsidiaries in Canada explain the slow rate of technological development in Canada. These companies are often said to have little interest in developing Canadian branch plant capabilities to design and engineer next-generation products for global markets. At the same time, R & D expenditures are not the only measure of the new technology foreign subsidiaries bring into Canada.

Canadian firms with an R & D focus tend to have better growth and export performance than those that do not. They are also better equipped to introduce existing technologies that can be bought or acquired in other ways. If markets and technologies develop as expected, there will be a high premium on firms that can develop R & D and design capabilities. Many firms that fail to develop such expertise will find it increasingly difficult to compete in both the domestic and foreign markets.

Financial Position

Historically, Canadian-based firms have had high levels of debt (see Table 14). In a number of industries this has worsened in recent years. High debt/equity ratios make it more difficult for many firms to raise the money necessary to respond to changing trade conditions. (See also Appendix D, Table D13.)

TABLE 14
CANADA AND U.S.
DEBT/EQUITY RATIOS
SELECTED MANUFACTURING INDUSTRIES *

	1978	1979	1980	1981	1982	1983	1984	1985**
Canada	58.1	56.4	57.3	63.5	69.3	62.5	58.1	57.4
U.S.	35.0	35.2	36.4	38.6	42.8	39.6	41.5	43.5

* The sum total of the following industries: petroleum & coal, paper & allied products, chemical products, primary metals, metal fabricating, machinery & equipment, electrical products, transportation equipment, textiles, printing and publishing, and food industry as defined by 3-digit SICs.

** First Quarter

Source: Nuala Beck & Associates

TRADE PERFORMANCE WITH THE UNITED STATES

Trade performance is commonly used as an indicator of international competitiveness. Although trade flows do not present a complete picture of the structural or organizational strengths and weaknesses of a particular sector, they do demonstrate an industry's ability to sell goods domestically and abroad.

Global trade is particularly important for Ontario manufacturers, whose scope for high-volume production is constrained by the small size of the Canadian market. The ability to sell internationally is vital to the growth of the province's and Canada's manufacturing base. Close to 90 per cent of Ontario's trade in manufactured goods is with the United States. (See Appendix E, Tables E1 and E2.)

Ontario's trade relationship with the U.S. in manufactured products, both exports and imports, has developed rapidly since 1980 - exceeding $100 billion in 1985. In U.S. dollar terms, this volume is greater than total manufacturing trade between the U.S. and any of the major European nations and approaches the volume of trade between the U.S. and Japan.

Ontario's manufacturers rely heavily on both the export and the import aspects of this relationship. Approximately one-third of every dollar earned and spent on manufactured goods in Ontario is tied to trade with the U.S. At the same time, Ontario's manufacturing trade with the rest of the world is diminishing relative to Ontario-U.S. trade.

Performance

In 1985, Ontario achieved a trade surplus in manufactured goods with the U.S. amounting to $332 million. Prior to 1984 Ontario had experienced a consistent deficit which reached $7 billion in 1981. Preliminary data for 1986 show a decline, suggesting a return to the historical trade deficit.

As shown in Table 15, the favourable balance in manufacturing trade that Ontario currently enjoys is tied largely to a surplus in the trade of motor vehicles amounting to $10.1 billion in 1985 (see also Appendix E, Table E3). Preliminary figures for 1986 indicate a trade surplus in vehicles of $10.9 billion. If motor vehicles and parts are excluded from the figures the result is a net trade deficit of over $4.6 billion for the remaining industries, reflecting competitive weaknesses in many sectors.[7]

Most of Ontario's other manufacturing trade surpluses are in resource-based industries, including pulp and paper mills, sawmills, planing and shingle mills, iron and steel mills, and petroleum refineries. On the other hand, the large trade deficits (aside from motor vehicle parts) are mostly in technology-related industries, including

- office and store machinery,
- machinery and equipment,
- scientific and professional equipment,
- miscellaneous chemicals, and
- plastics and synthetic resins.

On a trade-weighted basis, the industries that have experienced the most rapid trade improvement since 1980 are those where the volume of trade is relatively small.

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[7] Statistics Canada free trade figures for motor vehicle parts are now being revised to include additional automotive accessories that have previously been excluded. The major items are car radios and air conditioning systems. These revisions are expected to increase the size of the estimated current account deficit on Canada-U.S. trade in motor vehicle parts.

TABLE 15
ONTARIO MANUFACTURING
TOP 10 SURPLUSES AND DEFICITS
TRADE WITH THE U.S., 1985

	Industry	Value ($000's)	Total Surplus (Deficit) ($000's)
Major Surplus	Motor Vehicle Mfrs.	10,123,889	
	Pulp & Paper Mills	1,719,107	
	Sawmills, Planing & Shingle Mills	735,510	
	Iron & Steel Mills	676,223	
	Petroleum Refineries	402,098	
	Beverages	322,586	
	Smelting & Refining	320,809	
	Aircraft & Aircraft Parts Mfrs.	283,615	
	Steel Pipe & Tube Mills	217,572	
	Office Furniture Mfrs.	199,705	15,001,113
Major Deficit	Motor Vehicle Parts & Accessories	(5,181,156)	
	Office & Store Machinery Mfrs.	(1,914,309)	
	Misc. Machinery & Equipment Mfrs.	(1,730,128)	
	Scientific & Professional Equip.	(758,356)	
	Miscellaneous Chemical Industries	(683,735)	
	Mfrs. of Plastics & Synthetic Resins	(456,746)	
	Publishing Only	(407,250)	
	Misc. Manufacturing Ind. NES	(401,738)	
	Communications Equipment Mfrs.	(349,321)	
	Mfrs. of Misc. Electrical Products	(266,859)	(12,149,619)
	Net Balance for Industries Listed		2,851,494
	- Excluding Auto		(2,091,239)
	Balance for All Manufacturing Industries	332,033	
	- Excluding Auto		(4,610,700)

Source: Statistics Canada

In industries with a high individual trade component, which contribute significantly to overall manufacturing trade, improvements have been modest or nonexistent. The only exception is the auto sector, which experienced significant improvement in trade performance.

Manufacturers of office equipment, scientific and professional equipment, and industrial chemicals made very small improvements in their balance of trade. Of greater impact was the relative decline in industries such as pulp and paper, iron and steel mills, plastics and synthetic resins, and petroleum products.

Between 1980 and 1985, more Ontario industries experienced a positive shift in the balance of trade than a negative shift. However, apart from motor vehicles, which showed an improvement of $8.2 billion, other major gains were in resource-based industries, including

. sawmills	+$518 million
. pulp and paper mills	+$404 million
. iron and steel mills	+$226 million
. petroleum refineries	+$160 million

For technology-intensive industries, however, the trade deficit appears to be growing rapidly worse. Between 1980 and 1985, the following industries led the decline:

. Motor vehicle parts	-$1,800 million
. Office and store machinery	-$ 783 million
. Miscellaneous chemicals	-$ 248 million
. Plastics & synthetic resins	-$ 207 million
. Scientific and professional equipment	-$ 201 million

Ontario Penetration of the U.S. Market

Overall, Ontario's share of U.S. imports of manufactured goods increased between 1980 and 1985. However, that share, recorded at almost 13 per cent in 1985, is down from the 14 per cent recorded in 1983 as a result of declines in a number of key industries. These declines are mainly the result of increased offshore competition and slower relative export growth by Ontario manufacturers of high technology goods.

Detailed industry data indicate that since 1978 a number of Ontario industries have been major sources of manufactured products imported by the United States. The top Ontario suppliers of U.S. imports in 1984 are shown in Table 16 (see also Appendix E, Table E4). A number of these industries are resource-based - metals, non-metallic minerals, wood, and paper and related products. The list of U.S. imports also includes a wide range of other manufacturing activities, including automotive, plastics and synthetic resins, printing and publishing, and food products. It is noteworthy, however, that Ontario is not a major supplier for the U.S. market in strategic manufacturing sectors, such as electrical and electronics or machinery and equipment.

TABLE 16
ONTARIO MANUFACTURING
TOP SUPPLIERS TO THE U.S., 1984
SHARE OF U.S. IMPORTS

Industry	1984 Share of U.S. Imports
	(%)
Motor Vehicle Parts & Accessories	62.5
Mfrs. of Plastics & Synthetic Resins	39.4
Motor Vehicle Manufacturers	35.3
Abrasives Manufacturers	33.2
Concrete Products Manufacturers	32.3
Bakery Products	28.6
Publishing Only	28.3
Miscellaneous Vehicle Manufacturers	27.9
Commercial Printing	24.3
Feed	23.4
Pulp and Paper Mills	23.0
Aluminum Rolling, Casting Etc.	21.5
Heating Equipment Mfrs.	20.6
Cement Manufacturers	20.4
Knitting	20.0
Flour & Breakfast Cereal Products	18.5
Sawmills, Planing & Shingle Mills	18.2
Lime Manufacturers	18.1
Metal Rolling, Casting Etc. NES	17.9
Agricultural Implement Industry	16.2
Copper and Copper Alloy Rolling Etc.	15.4
Misc. Non-Metallic Mineral Prods.	15.3
Average for all Industries	13.8

Source: U.S. Department of Commerce

Between 1978 and 1984 the Ontario industries showing greatest gains in U.S. market share were

- knitted goods
- motor vehicle manufacturers
- heating equipment manufacturers
- commercial printing
- sawmills
- smelting & refining

At the same time, many technology related industries have in fact lost import market share in the U.S. These include

- office and store machinery;
- aircraft and parts
- motor vehicle parts
- industrial chemicals
- communications equipment
- machinery and equipment

Appendix E, Table E5 provides detailed industry breakdowns.

U.S. Penetration of the Ontario Market

Ontario relies heavily on imports from the United States, which represented close to 32 per cent of Ontario's market for manufactured products in 1985 (see Appendix E, Table E6).

As indicated in Table 17, a large number of capital-intensive and technological industries in Ontario experience high levels of import penetration. Areas where imports represent more than 50 per cent of the apparent provincial consumption of manufactured products include

- motor vehicle parts
- office and store machinery
- scientific and professional equipment
- aircraft and parts
- agricultural implements
- miscellaneous manufacturing
- machinery and equipment

Between 1980 and 1985, U.S. import penetration of the Ontario market increased by almost 7 per cent for manufacturing (see also Appendix E, Table E7).

TABLE 17
ONTARIO MANUFACTURING
IMPORTS FROM THE U.S. AS A PERCENTAGE OF TOTAL PROVINCIAL MARKET, 1985

Industry	1985 Import*/ Domestic Market
	(%)
Motor Vehicle Parts & Accessories	95.7
Office and Store Machinery Mfrs.	84.9
Scientific & Professional Equipment	63.2
Aircraft & Aircraft Parts Mfrs.	61.0
Agricultural Implement Industry	55.2
Misc. Manufacturing Ind. NES	53.4
Misc. Machinery & Equipment Mfrs.	52.5
Mfrs. of Plastics & Synthetic Resins	49.8
Boatbuilding and Repair	49.5
Manufacturers of Lighting Fixtures	47.2
Commercial Refrig. Air Cond. Mfrs.	45.4
Abrasives Manufacturers	43.5
Coffin and Casket Industry	41.6
Aluminum Rolling, Casting Etc.	40.9
Communications Equipment Manufacturers	40.5
Mfrs. of Household Radio and TV	37.9
Publishing Only	36.9
Motor Vehicle Manufacturers	32.8
Hardware, Tool and Cutlery Mfrs.	31.6
Stone Products Manufacturers	31.4
Mfrs. of Small Electrical Appliances	31.0
Misc. Metal Fabricating Inds.	30.8
Misc. Non-Metallic Mineral Prods.	28.2
Miscellaneous Chemical Industries	28.0
Wire and Wire Products Mfrs.	24.7
Average for all Manufacturing Industries	31.9

* Includes some re-exports, so that for some industries the apparent share of the provincial market held by imports may be overstated.

Source: Statistics Canada

Some of the largest increases in U.S. import shares were in the following areas:

- miscellaneous vehicles
- scientific and professional equipment
- miscellaneous manufacturing
- boatbuilding and repair
- commercial refrigeration and air conditioning

In several high-tech and capital goods sectors, the change in import penetration by U.S. firms was less than the overall average for overall manufacturing between 1980 and 1985. Indeed, some areas actually showed a decline, including

- industrial chemicals
- aircraft and parts
- electrical industrial equipment
- pharmaceuticals and medicines

SUMMARY OF COMPETITIVE PERFORMANCE

Data on trade between Ontario and the United States indicate both strengths and weaknesses in the competitive performance of Ontario manufacturers. Although Ontario's trade performance improved by almost $7 billion between 1980 and 1985, major shifts in the balance of trade were confined to a few industries. To a large extent, apparent increases in the competitiveness of Ontario manufacturers actually resulted from the depreciation of the Canadian dollar.

World trade in manufactured goods is oriented increasingly to products with a high technological content. Ontario, however, continues to export automotive and resource-based products to the United States, and to import capital and technology from that country. Although the provincial economy does have a large role in exports of technology-related goods in absolute terms, growing trade deficits in these products constrain overall manufacturing trade performance. More detailed comparisons between industries show that there have been significant improvements in trade performance in the automotive sector. Ontario continues to be a net importer of parts, but the vehicle assembly industry in Ontario has been highly successful in expanding sales in the U.S. market since 1980, generating a trade surplus of more than $10 billion in vehicles in 1985. Similar strengths have been demonstrated by manufacturers of wood, paper and metals, though not to the same degree.

Outside these areas, trade deficits continue to plague many strategic sectors. While machinery, electrical, and chemical products are exported in large dollar volumes, recent growth has been slow compared to the performance of other Ontario manufacturing sectors and offshore competitors. Ontario's share of the U.S. market for capital and technology-intensive goods has declined - in some cases drastically. There is also high and escalating penetration of the Ontario market by U.S. manufacturers of these goods. Based on changes in market shares in both Ontario and the U.S., several industries appear vulnerable to contraction as a result of losses in shares of both the domestic and U.S. markets. These industries include

- pulp and paper
- machinery
- office equipment
- motor vehicle parts
- communications equipment
- plastics and synthetic resins

The only Ontario manufacturing industry that has achieved an increase in the share of both markets in recent years is the miscellaneous chemicals industry.

APPENDIX A

OVERVIEW OF ONTARIO INDUSTRY

APPENDIX A

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A2	TRADE AND EMPLOYMENT	92
A3	ONTARIO MANUFACTURING INDUSTRIES - TARIFF LEVELS	96

TABLE A1
ONTARIO MANUFACTURING INDUSTRY CONSULTATIONS *

INDUSTRY ASSOCIATION	MAJOR INDUSTRY CATEGORY
GROCERY PRODUCTS MANUFACTURERS OF CANADA	- FRUIT AND VEGETABLE PROCESSORS
ONTARIO FOOD PROCESSORS' ASSOCIATION	- FRUIT AND VEGETABLE PROCESSORS
BAKERY COUNCIL OF ONTARIO	- BAKERY PRODUCTS MANUFACTURERS
ASSOCIATION OF CANADIAN BISCUIT MANUFACTURERS	- BAKERY PRODUCTS MANUFACTURERS
CANADIAN SUGAR INSTITUTE	- CANE AND BEET SUGAR INDUSTRY
CONFECTIONERY MANUFACTURERS ASSOCIATION OF CANADA	- SUGAR AND CHOCOLATE CONFECTIONERY INDUSTRY
ASSOCIATION OF CANADIAN DISTILLERS	- DISTILLERY PRODUCTS INDUSTRY
BREWERS' ASSOCIATION OF CANADA	- BREWERY PRODUCTS INDUSTRY
WINE COUNCIL OF ONTARIO	- WINE INDUSTRY
ONTARIO FURNITURE MANUFACTURERS' ASSOCIATION	- HOUSEHOLD FURNITURE INDUSTRIES
OFFICE FURNITURE GROUP	- OFFICE FURNITURE INDUSTRY
CANADIAN BUSINESS EQUIPMENT MANUFACTURERS' ASSOCIATION	- OFFICE AND STORE MACHINERY MANUFACTURERS - COMMUNICATIONS EQUIPMENT MANUFACTURERS - SCIENTIFIC AND PROFESSIONAL EQUIPMENT

TABLE A1 - CONTINUED

INDUSTRY ASSOCIATION	MAJOR INDUSTRY CATEGORY
ELECTRICAL AND ELECTRONIC MANUFACTURERS' ASSOCIATION	- OFFICE AND STORE MACHINERY MANUFACTURERS - COMMUNICATIONS EQUIPMENT MANUFACTURERS - SCIENTIFIC AND PROFESSIONAL EQUIPMENT - ELECTRIC INDUSTRIAL EQUIPMENT MANUFACTURERS - MANUFACTURERS OF ELECTRIC WIRE AND CABLE - MANUFACTURERS OF MISCELLANEOUS ELECTRICAL PRODUCTS
CANADIAN APPLIANCE MANUFACTURERS' ASSOCIATION	- MAJOR APPLIANCE MANUFACTURERS
THE CANADIAN ADVANCED TECHNOLOGY ASSOCIATION	- OFFICE AND STORE MACHINERY MANUFACTURERS - COMMUNICATIONS EQUIPMENT MANUFACTURERS - SCIENTIFIC AND PROFESSIONAL EQUIPMENT
THE SOCIETY OF THE PLASTICS INDUSTRY OF CANADA	- PLASTIC INDUSTRY
CANADIAN STEEL PRODUCERS ASSOCIATION	- IRON AND STEEL MILLS
MOTOR VEHICLE MANUFACTURERS ASSOCIATION **	- MOTOR VEHICLE MANUFACTURERS
THE AUTOMOTIVE PARTS MANUFACTURERS' ASSOCIATION OF CANADA	- MOTOR VEHICLE PARTS AND ACCESSORIES MANUFACTURERS
THE SHOE MANUFACTURERS' ASSOCIATION OF CANADA	- FOOTWEAR MANUFACTURERS
CANADIAN TEXTILE INSTITUTE	- TEXTILES

TABLE A1 - CONTINUED

INDUSTRY ASSOCIATION	MAJOR INDUSTRY CATEGORY
APPAREL MANUFACTURERS' ASSOCIATION OF ONTARIO	- CLOTHING MANUFACTURERS
CANADIAN APPAREL MANUFACTURERS' ASSOCIATION	- CLOTHING MANUFACTURERS
AEROSPACE INDUSTRIES ASSOCIATION OF CANADA	- AIRCRAFT AND AIRCRAFT PARTS MANUFACTURERS
ONTARIO LUMBER MANUFACTURERS' ASSOCIATION	- SAWMILLS, PLANING MILLS AND SHINGLE MILLS
ONTARIO FOREST INDUSTRIES ASSOCIATION	- SAWMILLS, PLANING MILLS AND SHINGLE MILLS - PULP AND PAPER MILLS
CANADIAN PULP AND PAPER ASSOCIATION	- PULP AND PAPER MILLS
MACHINERY AND EQUIPMENT MANUFACTURERS' ASSOCIATION OF CANADA	- MACHINERY AND EQUIPMENT MANUFACTURERS
CANADIAN TOOLING MANUFACTURERS' ASSOCIATION	- MACHINERY AND EQUIPMENT MANUFACTURERS
THE CANADIAN CHEMICAL PRODUCERS ASSOCIATION	- PETROCHEMICALS

* INCLUDES MEETINGS WITH 29 SEPARATE INDUSTRY ASSOCIATIONS UP TO JANUARY 20, 1987.

** THOUGH NO FORMAL MEETING WAS HELD, ONGOING CONSULTATION PROVIDED SIMILAR INFORMATION EXCHANGES.

TOGETHER, THESE GROUPS COVER 28 MAJOR INDUSTRY CATEGORIES AND REPRESENT 37 INDIVIDUAL MANUFACTURING SUBSECTORS.

TABLE A1 (PART II)
ONTARIO MANUFACTURING
DESCRIPTION OF MAJOR INDUSTRY CATEGORIES

MAJOR INDUSTRY CATEGORY	INDUSTRIES *
FRUIT AND VEGETABLE PROCESSORS	- FRUIT AND VEGETABLE PROCESSING
BAKERY PRODUCTS MANUFACTURERS	- BAKERY PRODUCTS
CANE AND BEET SUGAR INDUSTRY	- MISCELLANEOUS FOODS
SUGAR AND CHOCOLATE CONFECTIONERY INDUSTRY	- MISCELLANEOUS FOODS
DISTILLERY PRODUCTS INDUSTRY	- BEVERAGES
BREWERY PRODUCTS INDUSTRY	- BEVERAGES
WINE INDUSTRY	- BEVERAGES
PLASTIC INDUSTRY	- PLASTIC FABRICATING
FOOTWEAR MANUFACTURERS	- SHOES
TEXTILES	- COTTON YARN AND CLOTH - WOOL YARN AND CLOTH - MAN-MADE FIBRE, YARN AND CLOTH - FELT AND FIBRE PROCESSING - CARPETS, MATS AND RUGS - MISCELLANEOUS TEXTILES - HOSIERY - KNITTING
CLOTHING MANUFACTURERS	- MEN'S CLOTHING - WOMEN'S CLOTHING - CHILDREN'S CLOTHING - FOUNDATION GARMENTS - MISCELLANEOUS CLOTHING
SAWMILLS, PLANING MILLS AND SHINGLE MILLS	- SAWMILLS, PLANING AND SHINGLE MILLS
HOUSEHOLD FURNITURE INDUSTRIES	- HOUSEHOLD FURNITURE MANUFACTURERS

TABLE A1 (PART II) CONTINUED

MAJOR INDUSTRY CATEGORY	INDUSTRIES *
OFFICE FURNITURE INDUSTRY	- OFFICE FURNITURE MANUFACTURERS
PULP AND PAPER MILLS	- PULP AND PAPER MILLS
IRON AND STEEL MILLS	- IRON AND STEEL MILLS
MACHINERY AND EQUIPMENT MANUFACTURERS	- MISCELLANEOUS MACHINERY AND EQUIPMENT MANUFACTURERS
OFFICE AND STORE MACHINERY MANUFACTURERS	- OFFICE AND STORE MACHINERY MANUFACTURERS
AIRCRAFT AND AIRCRAFT PARTS MANUFACTURERS	- AIRCRAFT AND AIRCRAFT PARTS MANUFACTURERS
MOTOR VEHICLE MANUFACTURERS	- MOTOR VEHICLE MANUFACTURERS
MOTOR VEHICLE PARTS AND ACCESSORIES MANUFACTURERS	- MOTOR VEHICLE PARTS AND ACCESSORIES
MAJOR APPLIANCE MANUFACTURERS	- MANUFACTURERS OF MAJOR APPLIANCES
COMMUNICATIONS EQUIPMENT MANUFACTURERS	- COMMUNICATIONS EQUIPMENT MANUFACTURERS
ELECTRIC INDUSTRIAL EQUIPMENT MANUFACTURERS	- MANUFACTURERS OF ELECTRICAL INDUSTRIAL EQUIPMENT
MANUFACTURERS OF ELECTRIC WIRE AND CABLE	- MANUFACTURERS OF ELECTRIC WIRE AND CABLE
MANUFACTURERS OF MISCELLANEOUS ELECTRICAL PRODUCTS	- MANUFACTURERS OF MISCELLANEOUS ELECTRICAL PRODUCTS
PETROCHEMICALS	- MANUFACTURERS OF PLASTICS AND SYNTHETIC RESINS - MANUFACTURERS OF INDUSTRIAL CHEMICALS
SCIENTIFIC AND PROFESSIONAL EQUIPMENT	- SCIENTIFIC AND PROFESSIONAL EQUIPMENT

* 1970 BASED 3 DIGIT SIC CLASSIFICATION

TABLE A2

ONTARIO MANUFACTURING TRADE AND EMPLOYMENT

INDUSTRY NAME	EMPLOYMENT 1985e	EXPORTS TO U.S. 1985	IMPORTS FROM U.S. 1985
	(#)	($000)	($000)
AUTOMOTIVE			
MOTOR VEHICLE MANUFACTURERS	42,147	19,754,073	9,630,184
MOTOR VEHICLE PARTS AND ACCESSORIES MANUFACTURERS	59,534	10,548,699	15,729,855
TOTAL AUTOMOTIVE GROUP **	101,681	30,302,773	25,360,040
(AS A % OF TOTAL MANUFACTURING)	(11.6)	(60.4)	(50.9)
EXPORT OPPORTUNITIES			
IRON AND STEEL MILLS	38,892	1,239,650	563,427
SAWMILLS, PLANING MILLS AND SHINGLE MILLS	6,636	865,936	130,426
PETROCHEMICALS	11,532	589,078	1,168,265
TOTAL EXPORT GROUP	57,060	2,694,664	1,862,119
(AS A PERCENTAGE OF TOTAL MANUFACTURING)	(6.5)	(5.4)	(3.7)

TABLE A2 (CONTINUED)

INDUSTRY NAME	EMPLOYMENT 1985e	EXPORTS TO U.S. 1985	IMPORTS FROM U.S. 1985
	(#)	($000)	($000)
IMPORT PENETRATION			
SCIENTIFIC AND PROFESSIONAL EQUIPMENT	18,518	665,191	1,423,547
TEXTILES	24,727	143,390	516,245
MANUFACTURERS OF MISCELLANEOUS ELECTRICAL PRODUCTS	7,966	162,402	429,260
FRUIT AND VEGETABLE PROCESSORS	8,471	37,214	156,357
MAJOR APPLIANCE MANUFACTURERS	5,435	61,536	130,558
HOUSEHOLD FURNITURE INDUSTRIES	13,538	104,407	68,108
SUGAR AND CHOCOLATE CONFECTIONERY INDUSTRY	4,974	41,892	54,095
CLOTHING MANUFACTURERS	22,877	58,521	29,571
FOOTWEAR MANUFACTURERS	8,306	18,355	14,862
BREWERY PRODUCTS INDUSTRY	4,047	90,410	8,323
WINE INDUSTRY	662	532	3,098
TOTAL IMPORT GROUP (AS A PERCENTAGE OF TOTAL MANUFACTURING)	119,521 (13.6)	1,383,849 (2.8)	2,834,023 (5.7)

TABLE A2 (CONTINUED)

INDUSTRY NAME	EMPLOYMENT 1985e	EXPORTS TO U.S. 1985	IMPORTS FROM U.S. 1985
MIXED IMPORT AND EXPORT RESULTS	(#)	($000)	($000)
PULP AND PAPER MILLS	19,360	2,047,627	328,520
MACHINERY AND EQUIPMENT MANUFACTURERS	31,631	1,696,197	3,426,325
OFFICE AND STORE MACHINERY MANUFACTURERS	7,730	1,261,356	3,175,665
COMMUNICATIONS EQUIPMENT MANUFACTURERS	25,980	891,821	1,241,143
AIRCRAFT AND AIRCRAFT PARTS MANUFACTURERS	13,539	863,863	580,248
ELECTRIC INDUSTRIAL EQUIPMENT MANUFACTURERS	16,496	245,908	477,532
DISTILLERY PRODUCTS INDUSTRY	2,738	241,492	4,373
PLASTIC INDUSTRY	15,462	236,936	311,328
OFFICE FURNITURE INDUSTRY	4,217	221,638	21,932

TABLE A2 (CONTINUED)

INDUSTRY NAME	EMPLOYMENT 1985e	EXPORTS TO U.S. 1985	IMPORTS FROM U.S. 1985
	(#)	($000)	($000)
MIXED IMPORT AND EXPORT RESULTS (CONT'D)			
CANE AND BEET SUGAR INDUSTRY	N.A.	88,725	15,344
BAKERY PRODUCTS MANUFACTURERS	13,976	87,501	21,614
MANUFACTURERS OF ELECTRIC WIRE AND CABLE	5,040	77,990	86,533
TOTAL MIXED GROUP (AS A PERCENTAGE OF TOTAL MANUFACTURING)	156,169 (17.8)	7,961,054 (15.9)	9,690,557 (19.4)
TOTAL INDUSTRIES CONSULTED	434,431	42,342,340	39,746,739
TOTAL ALL INDUSTRIES	877,800	50,172,423	49,840,390
TOTAL INDUSTRIES CONSULTED AS A PERCENTAGE OF ALL INDUSTRIES	(49.5)	(84.4)	(79.7)

FOOTNOTES

* INCLUDES MEETINGS WITH 29 SEPARATE INDUSTRY ASSOCIATIONS UP TO JANUARY 20, 1987. THESE GROUPS COVER 28 MAJOR INDUSTRY CATEGORIES AND REPRESENT 37 INDIVIDUAL MANUFACTURING SUBSECTORS.

** THESE TWO INDUSTRIES ACCOUNT FOR ONLY A PORTION OF TOTAL AUTOMOTIVE ACTIVITY IN ONTARIO.

e ESTIMATED

TABLE A3

ONTARIO MANUFACTURING INDUSTRIES * TRADE PERFORMANCE

AUTOMOTIVE

SIC	NAME OF INDUSTRY	EMPLOYEESe	1985 TRADE WITH THE UNITED STATES EXPORTS	 IMPORTS	 TRADE BALANCE	NORMALIZED CHANGE IN TRADE BALANCE	 NTB 1980-85	LEVELS OF DUTY AND PROTECTION 1985 CANADA DUTY	 NTB	 1985 U.S. DUTY	 NTB
		(#)	($000)	($000)	($000)	($000)	(%)	(%)		(%)	
188	AUTO. FABRIC ACCESSORIES	5,007	-	-	-	-	-	20.0	L	7.9	I
324	TRUCK BODY AND TRAILER MFRS.	3,805	77,859	78,525	(666)	-0.4	-7.3	6.4	L	0.7	L
	TOTAL AUTOMOTIVE	8,812	77,859	78,525	(666)	-	-	-			
	(AS A PERCENTAGE OF ALL MANUFACTURING)	(1.0)	(0.2)	(0.2)							

EXPORT OPPORTUNITY

SIC	NAME OF INDUSTRY	EMPLOYEESe	1985 TRADE WITH THE UNITED STATES EXPORTS	 IMPORTS	 TRADE BALANCE	NORMALIZED CHANGE IN TRADE BALANCE	 NTB 1980-85	LEVELS OF DUTY AND PROTECTION 1985 CANADA DUTY	 NTB	 1985 U.S. DUTY	 NTB
		(#)	($000)	($000)	($000)	($000)	(%)	(%)		(%)	
292	STEEL PIPE AND TUBE MILLS	2,770	290,025	72,453	217,572	60.0	5.9	5.8	L	2.7	H
369	MISC. PETROLEUM & COAL PRODS. INDS.	138	190,155	69,260	120,894	46.6	11.0	0.3	L	4.0	L
	TOTAL EXPORT OPPORTUNITY	2,908	480,180	141,713	338,467	54.4	-	-		-	
	(AS A PERCENTAGE OF ALL MANUFACTURING)	(0.3)	(1.0)	(0.3)	-	-	-	-		-	

SIC STANDARD INDUSTRIAL CLASSIFICATION
NTB - NON TARIFF BARRIERS - H HIGH
I - INTERMEDIATE
LOW

TABLE A3 - CONTINUED

IMPORT SENSITIVE

SIC	NAME OF INDUSTRY	EMPLOYEES*	1985 TRADE WITH THE UNITED STATES					LEVELS OF DUTY AND PROTECTION			
			EXPORTS	IMPORTS	TRADE BALANCE	NORMALIZED TRADE BALANCE	CHANGE IN NTB 1980-85	1985 CANADA DUTY	1985 CANADA NTB	1985 U.S. DUTY	1985 U.S. NTB
		(#)	($000)	($000)	($000)	($000)	(%)	(%)		(%)	
101	MEAT AND POULTRY PRODUCTS	14,921	151,193	187,007	(35,814)	-10.6	-4.6	2.3	L	1.0	L
104	DAIRY PRODUCTS	8406	6,481	10,068	(3,587)	-21.7	22.0	9.7	L	6.1	L
105	FLOUR & BREAKFAST CEREAL PRODUCTS	2,951	25,218	40,951	(15,733)	-23.8	-32.7	7.6	L	4.2	L
106	FEED	3,782	24,680	34,188	(9,509)	-16.2	-6.5	3.9	L	0.5	L
151	LEAF TOBACCO PROCESSORS	-	31,357	3,151	28,206	81.7	12.6	48.4	L	4.0	L
153	TOBACCO PRODUCTS	-	4,523	-	ERR	-	-	40.9	L	12.2	L
162	RUBBER PRODUCTS	19,882	407,993	436,329	(28,335)	-3.4	19.2	9.3	L	3.8	I
175	LEATHER GLOVES	946	99	226	(126)	-38.8	19.3	20.0	L	18.4	L
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	2,619	13,728	13,153	575	2.1	62.0	14.2	L	8.8	L
184	CORDAGE & TWINE	372	3,720	5,097	(1,378)	-15.6	44.2	11.4	L	6.5	I
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	1,302	1,259	1,029	231	10.1	94.4	16.7	L	12.3	I
252	VENEER AND PLYWOOD MILLS	2,193	58,724	22,831	35,893	44.0	5.3	5.5	L	2.2	L
256	WOODEN BOX FACTORIES	2,287	2,795	6,357	(3,562)	-38.9	-11.4	8.1	L	5.9	L
258	COFFIN AND CASKET INDUSTRY	177	-	6,930	-	-	-	14.2	L	0.2	L
266	MISC. FURNITURE AND FIXTURE MFRS.	7,130	134,761	44,458	90,303	50.4	19.0	13.0	L	2.6	L
268	ELECTRIC LAMP AND SHADE MFRS.	618	-	893	-	-	-	10.5	L	2.6	L
272	ASPHALT ROOFING MANUFACTURERS	426	56,405	1,473	54,932	94.9	-1.7	10.5	L	0.1	L
273	PAPER BOX AND BAG MANUFACTURERS	11,820	24,105	55,241	(31,135)	-39.2	43.4	10.7	L	4.2	L
274	MISCELLANEOUS PAPER CONVERTERS	9,793	106,581	167,853	(61,272)	-22.3	5.9	9.5	I	3.2	I
286	COMMERCIAL PRINTING	30,139	77,798	191,551	(113,752)	-42.2	20.7	6.8	L	2.2	L
287	PLATEMAKING, TYPESETTING ETC. IND.	5,839	794	19,563	(18,769)	-92.2	-4.3	9.8	L	1.3	L
288	PUBLISHING ONLY	7,467	59,261	466,512	(407,250)	-77.5	-7.4	0.2	H	0.1	L
289	PUBLISHING AND PRINTING	17,355	109,093	264,977	(155,884)	-41.7	36.6	0.0	H	0.3	L
294	IRON FOUNDRIES	5,864	99,136	88,961	10,175	5.4	-1.5	3.7	L	0.9	L
297	COPPER AND COPPER ALLOY ROLLING ETC.	1,794	69,223	54,831	14,393	11.6	0.6	5.2	L	1.6	L
301	BOILER AND PLATE WORKS	3,630	23,597	26,454	(2,857)	-5.7	20.1	9.9	L	5.3	L

SIC - STANDARD INDUSTRIAL CLASSIFICATION
NTB - NON TARIFF BARRIERS - H - HIGH
I - INTERMEDIATE
L - LOW
NORMALIZED TRADE BALANCE DEFINED AS ((EXPORTS - IMPORTS)/(EXPORTS + IMPORTS))

TABLE A3 - CONTINUED

IMPORT SENSITIVE-CONT'D

SIC	NAME OF INDUSTRY	EMPLOYEES*	1985 TRADE WITH THE UNITED STATES					LEVELS OF DUTY AND PROTECTION			
			EXPORTS	IMPORTS	TRADE BALANCE	NORMALIZED TRADE BALANCE	CHANGE IN NTB 1980-85	1985 CANADA DUTY	1985 CANADA NTB	1985 U.S. DUTY	1985 U.S. NTB
		(#)	($000)	($000)	($000)	($000)	(%)	(%)		(%)	
302	FAB. STRUCTURAL METAL INDUSTRY	2,837	-	1,069	-	-	-47.0	12.8	L	2.3	H
303	ORNAMENTAL & ARCHITECTURAL METAL	5,326	99,292	17,244	82,048	70.4	-	11.4	L	2.3	L
304	METAL STAMPING, PRESSING AND COATING	14,343	52,359	131,648	(79,290)	-43.1	12.7	9.6	L	1.4	L
305	WIRE AND WIRE PRODUCTS MFRS.	6,784	216,790	325,755	(108,965)	-20.1	3.1	4.6	L	3.3	L
306	HARDWARE, TOOL AND CUTLERY MFRS.	11,364	341,310	321,841	19,469	2.9	19.4	9.0	I	2.5	I
307	HEATING EQUIPMENT MFRS.	3,416	64,772	37,307	27,465	26.9	33.4	12.3	I	4.2	L
308	MACHINE SHOPS	4,384	-	-	-	-	-	12.0	L	2.3	L
309	MISC. METAL FABRICATING INDS.	10,315	336,781	481,613	(144,833)	-17.7	31.4	8.6	I	2.7	H
316	COMMERCIAL REFRIG. AIR COND. MFRS.	2,557	75,844	221,930	(146,086)	-49.1	16.2	6.9	H	3.0	L
326	RAILROAD ROLLING STOCK INDUSTRY	4,427	32,508	137,424	(104,915)	-61.7	-69.5	7.8	H	6.7	H
327	SHIPBUILDING AND REPAIR	2,808	8,635	3,235	5,399	45.5	55.1	5.1	L	1.9	H
328	BOATBUILDING AND REPAIR	-	100,023	54,919	45,104	29.1	18.9	8.0	L	2.7	L
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-	85,760	34,748	51,011	42.3	7.2	7.0	L	0.6	L
331	MFRS OF SMALL ELECTRICAL APPLIANCES	3,407	50,305	261,105	(210,799)	-67.7	12.1	11.7	L	4.2	L
333	MANUFACTURERS OF LIGHTING FIXTURES	334	13,126	145,366	(132,240)	-83.4	8.6	6.0	L	2.4	L
351	CLAY PRODUCTS MANUFACTURERS	1,569	1,159	33,450	(32,291)	-93.3	-0.0	8.9	L	5.9	L
355	READY-MIX CONCRETE MANUFACTURERS	2,508	-	-	-	-	-	12.5	L	0.9	L
356	GLASS AND GLASS PRODUCTS MFRS.	6,938	45,240	230,967	(185,727)	-67.2	10.3	5.7	L	2.1	L
357	ABRASIVES MANUFACTURERS	1,783	118,109	76,212	41,897	21.6	7.9	5.6	L	0.7	L
359	MISC. NON-METALLIC MINERAL PRODS.	4,238	89,085	179,686	(90,601)	-33.7	37.5	4.4	L	2.7	L
374	MFRS PHARMACEUTICALS AND MEDICINES	10,099	28,616	162,233	(133,618)	-70.0	12.0	6.2	H	3.3	L
375	PAINT AND VARNISH MANUFACTURERS	3,949	14,405	131,424	(117,019)	-80.2	2.7	9.8	L	4.5	L
377	MFRS OF TOILET PREPARATIONS	4,468	24,937	66,505	(41,568)	-45.5	38.3	13.2	I	5.7	L
379	MISCELLANEOUS CHEMICAL INDUSTRIES	11,109	109,995	793,750	(683,755)	-75.7	-0.8	6.4	I	4.5	L
392	JEWELLERY AND SILVERWARE INDUSTRY	6,134	78,320	75,159	3,161	2.1	57.8	5.7	L	3.0	L
393	SPORTING GOODS AND TOY INDUSTRIES	5,803	24,290	144,220	(119,929)	-71.2	-20.7	10.3	L	3.1	L
397	SIGNS AND DISPLAYS INDUSTRY	3,524	22,699	14,940	7,758	20.6	58.1	13.0	L	3.3	L
399	MISC. MANUFACTURING IND. NES	8,321	144,075	545,813	(401,738)	-58.2	9.1	9.1	L	3.9	L
	TOTAL IMPORT SENSITIVE	304,459	3,670,960	6,779,648	(3,108,688)	-29.7	-	-		-	
	(AS A PERCENTAGE OF ALL MANUFACTURING)	(34.7)	(7.3)	(13.6)	-	-	-	-		-	

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TABLE A3 - CONTINUED

MIXED RESULTS

			1985 TRADE WITH THE UNITED STATES					LEVELS OF DUTY AND PROTECTION			
		*		*				1985 CANADA		1985 U.S.	
SIC	NAME OF INDUSTRY	EMPLOYEESe	EXPORTS	IMPORTS	TRADE BALANCE	NORMALIZED TRADE BALANCE	CHANGE IN NTB 1980-85	DUTY	NTB	DUTY	NTB
		(#)	($000)	($000)	($000)	($000)	(%)	(%)		(%)	
102	FISH PRODUCTS	6,120	35,839	36,452	(613)	-0.8	11.9	1.1	L	[illegible]	L
172	LEATHER TANNERIES	1,229	26,517	15,318	11,200	26.8	18.5	7.0	L	4.[illegible]	L
246	FUR GOODS	600	26,113	601	25,512	95.5	6.3	13.8	L	6.9	I
254	SASH, DOOR & OTHER MILLWORK PLANTS	7,475	40,006	43,950	(3,944)	-4.7	16.7	7.1	L	5.2	L
259	MISCELLANEOUS WOOD INDUSTRIES	2,664	143,384	23,801	119,583	71.5	16.9	5.7	L	4.4	L
295	SMELTING AND REFINING	6,863	552,486	231,677	320,809	40.9	6.1	1.2	L	0.3	L
296	ALUMINUM ROLLING, CASTING ETC.	4,359	210,204	458,841	(248,637)	-37.2	25.4	2.4	L	3.4	L
298	METAL ROLLING, CASTING ETC. NES	2,617	79,651	55,893	23,758	17.5	-3.0	1.7	L	5.2	L
311	AGRICULTURAL IMPLIMENT INDUSTRY	4,802	352,440	504,863	(152,423)	-17.8	-17.7	0.3	I	0.1	L
334	MFRS. OF HOUSEHOLD RADIO AND TV	2,844	191,575	282,698	(91,123)	-19.2	29.3	3.5	L	4.8	L
352	CEMENT MANUFACTURERS	1,360	90,451	10,861	79,590	78.6	6.0	0.4	L	0.0	I
353	STONE PRODUCTS MANUFACTURERS	190	4,408	4,383	26	0.3	48.5	4.3	L	5.1	L
354	CONCRETE PRODUCTS MANUFACTURERS	3,260	23,246	3,215	20,030	75.7	2.0	2.6	L	5.6	L
358	LIME MANUFACTURERS	453	5,904	1,199	4,705	66.2	-3.8	0.0	L	0.6	L
365	PETROLEUM REFINERIES	12,162	684,378	282,281	402,098	41.6	-11.0	1.4	L	0.4	L
372	MANUFACTURERS OF MIXED FERTILIZERS	479	19,692	14,677	5,015	14.6	34.9	0.0	L	0.0	L
376	MFRS OF SOAP AND CLEANING COMPOUNDS	6,429	42,513	2,105	40,408	90.6	52.0	0.0	I	2.6	L
	TOTAL MIXED RESULTS	63,907	2,528,806	1,972,814	555,992	12.4	-	-		-	
	(AS A PERCENTAGE OF ALL MANUFACTURING)	(7.3)	(5.0)	(4.0)	-	-	-	-		-	
	TOTAL ALL INDUSTRIES	877,800	50,172,423	49,840,390	332,033	0.3	14.3				

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NORMALIZED TRADE BALANCE DEFINED AS ((EXPORTS - IMPORTS)/(EXPORTS + IMPORTS))

* - BASED ON 75 INDUSTRIES FOR WHICH INDUSTRY CONSULTATIONS HAVE YET TO BE UNDERTAKEN
e - ESTIMATED, 1985

APPENDIX B

REGIONAL DISTRIBUTION OF ONTARIO MANUFACTURING

APPENDIX B

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APPENDIX B - REGIONAL DISTRIBUTION OF ONTARIO MANUFACTURING

SUMMARY OF METHODOLOGY

The distribution of manufacturing employment across Ontario was estimated, where possible, for all industries at a 3-digit level of Standard Industrial Classification. Estimates have been provided for all counties, districts, and regional municipalities in the province. These data have been aggregated to the level of economic region as well.

Estimates of employment distribution were calculated in a four-step process:

- Using the MITT Company Information System (CIS), the level of county employment was calculated for all SICs, through a listing of all establishments in the CIS, including their corresponding SIC, level of employment, and site of operations (county). The data were then aggregated to the county level for each industry, and the percentage share of aggregate county manufacturing employment provided by each industry was calculated.

- In a second step, the percentage distribution of county employment across SICs was factored by the actual level of total manufacturing employment in each county according to the Statistics Canada Census of 1981. In this way, a numerical value of employment for each SIC by county could be calculated (which closely corresponds to aggregate Statistics Canada data).

- All county employment figures were then aggregated for each industry to arrive at an estimated Ontario employment figure for each SIC. Based on these totals, the distribution of employment activity across counties was calculated for each SIC.

- Finally, the distribution of activity by county for each SIC was factored against the 1985 estimates of SIC employment used in the trade analysis. The results of this final matrix are included in Appendix E, Tables E1 through E6. These tables show, in absolute terms, the estimated distribution of employment activity by SIC at both economic region and county level.

These estimates are constrained by the fact that the MITT Company Information System currently accounts for only three-quarters of the manufacturing establishments in the province. Further, there is a degree of double counting in cases where firms manufacturing multiple products are covered under more than one SIC. Keeping these caveats in mind, this analysis provides a realistic representation of Ontario manufacturing employment which is distributed across a high degree of product differentiation at the firm level.

Through the iterative process used here, double counting has been largely factored out and employment differentiation was accounted for. Further work is currently under way to refine estimates of regional distribution in manufacturing, to include a 1980-based SIC system at a 4-digit level of detail, as well as an expansion of the CIS system to include all manufacturers in the province not currently stored on the data base.

TABLE B1
ONTARIO MANUFACTURING
DISTRIBUTION OF MANUFACTURING EMPLOYMENT, 1985
(NUMBER OF EMPLOYEES)

SIC	INDUSTRY NAME	CENTRAL ONTARIO	EASTERN ONTARIO	N. EASTERN ONTARIO	N. WESTERN ONTARIO	S. WESTERN ONTARIO	TOTAL ONTARIO
101	MEAT & POULTRY PRODUCTS	12,485	223	91	0	2,122	14,921
102	FISH PRODUCTS	-	-	0	-	-	-
103	FRUIT & VEGETABLE PROCESSING	5,418	430	27	35	2,048	8,471
104	DAIRY PRODUCTS	6,373	1,790	166	26	759	8,406
105	FLOUR & BREAKFAST CEREAL PRODUCTS	2,276	107	6	20	541	2,951
106	FEED	3,030	95	30	0	626	3,782
107	BAKERY PRODUCTS	12,490	627	0	155	703	13,976
108	MISC. FOODS	11,873	1,477	46	0	1,934	15,331
109	BEVERAGES	6,847	792	449	20	4,834	12,941
151	LEAF TOBACCO PROCESSORS	-	-	0	-	-	-
153	TOBACCO PRODUCTS	-	-	0	-	-	-
162	RUBBER PRODUCTS	16,234	1,036	285	0	2,326	19,882
165	PLASTIC FABRICATING (NES)	17,836	770	189	27	4,696	23,518
172	LEATHER TANNERIES	1,228	0	0	0	0	[illegible],229
174	SHOES	4,665	2,819	0	0	821	8,306
175	LEATHER GLOVES	546	325	0	0	77	946
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	1,503	485	88	0	542	2,619
181	COTTON YARN & CLOTH	-	-	0	-	-	-
182	WOOL YARN & CLOTH	834	63	0	0	375	1,273
183	MAN-MADE FIBRE, YARN & CLOTH	3,171	4,405	504	0	372	8,451
184	CORDAGE & TWINE	303	59	8	0	2	372
185	FELT & FIBRE PROCESSING	747	100	0	0	19	865
186	CARPETS, MATS & RUGS	1,263	166	11	0	46	1,401
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	1,078	144	24	10	47	1,302
188	AUTO. FABRIC ACCESSORIES	-	-	0	-	-	-
189	MISC. TEXTILES	1,650	134	39	26	198	2,047
231	HOSIERY	1,078	164	0	0	508	1,749
239	KNITTING	3,265	549	123	0	512	4,501
243	MEN'S CLOTHING	11,035	660	82	0	675	12,452
244	WOMEN'S CLOTHING	5,935	355	44	0	363	6,697
245	CHILDREN'S CLOTHING	690	41	5	0	42	773
246	FUR GOODS	-	-	0	-	0	-
248	FOUNDATION GARMENTS	641	604	0	0	0	1,247
249	MISC. CLOTHING	1,410	113	2	0	184	1,708
251	SAWMILLS, PLANING AND SHINGLE MILLS	1,257	141	2,695	2,384	159	6,536
252	VENEER AND PLYWOOD MILLS	664	130	476	868	54	2,193
254	SASH, DOOR & OTHER MILLWORK PLANTS	4,824	688	477	286	1,201	7,475
256	WOODEN BOX FACTORIES	1,333	108	33	0	812	2,287
258	COFFIN AND CASKET INDUSTRY	163	15	0	0	0	177
259	MISCELLANEOUS WOOD INDUSTRIES	1,567	397	144	39	517	2,664

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SIC	INDUSTRY NAME	CENTRAL ONTARIO	EASTERN ONTARIO	N. EASTERN ONTARIO	N. WESTERN ONTARIO	S. WESTERN ONTARIO	TOTAL ONTARIO
261	HOUSEHOLD FURNITURE MANUFACTURERS	10,166	966	357	5	2,044	13,538
264	OFFICE FURNITURE MANUFACTURERS	3,681	258	24	0	255	4,217
266	MISC. FURNITURE AND FIXTURE MFRS.	-	-	0	-	-	-
268	ELECTRIC LAMP AND SHADE MFRS.	619	0	0	0	0	618
271	PULP AND PAPER MILLS	4,601	3,850	4,716	5,671	522	19,360
272	ASPHALT ROOFING MANUFACTURERS	-	-	0	-	-	-
273	PAPER BOX AND BAG MANUFACTURERS	9,766	655	49	0	1,352	11,820
274	MISCELLANEOUS PAPER CONVERTERS	5,752	2,677	779	17	568	9,793
286	COMMERCIAL PRINTING	24,250	3,204	53	406	2,225	30,139
287	PLATEMAKING, TYPESETTING ETC. IND.	2,034	128	0	0	3,676	5,839
288	PUBLISHING ONLY	5,814	335	4	264	1,050	7,467
289	PUBLISHING AND PRINTING	11,435	2,335	654	0	2,929	17,355
291	IRON AND STEEL MILLS	30,306	1,141	5,484	4	1,957	38,892
292	STEEL PIPE AND TUBE MILLS	1,814	11	872	0	74	2,770
294	IRON FOUNDRIES	-	-	0	-	-	-
295	SMELTING AND REFINING	5,926	553	117	231	36	6,863
296	ALUMINUM ROLLING, CASTING ETC.	2,860	679	47	4	769	4,359
297	COPPER AND COPPER ALLOY ROLLING ETC.	1,136	181	25	1	450	1,794
298	METAL ROLLING, CASTING ETC. NES	2,503	80	10	0	24	2,617
301	BOILER AND PLATE WORKS	3,322	0	0	0	310	3,630
302	FAB. STRUCTURAL METAL INDUSTRY	-	-	0	-	-	-
303	ORNAMENTAL & ARCHITECTURAL METAL	3,627	697	164	170	668	5,326
304	METAL STAMPING, PRESSING AND COATING	8,852	653	86	0	4,751	14,343
305	WIRE AND WIRE PRODUCTS MFRS.	5,497	341	87	0	859	6,784
306	HARDWARE, TOOL AND CUTLERY MFRS.	8,230	1,152	80	0	1,902	11,364
307	HEATING EQUIPTMENT MFRS.	2,683	352	37	0	344	3,416
308	MACHINE SHOPS	-	-	0	-	-	-
309	MISC. METAL FABRICATING INDS.	7,592	682	349	88	1,605	10,315
311	AGRICULTURAL IMPLEMENT INDUSTRY	4,083	149	35	25	510	4,802
315	MISC. MACHINERY & EQUIPTMENT MFRS.	21,354	3,138	1,081	309	5,749	31,631
316	COMMERCIAL REFRIG. AIR COND. MFRS.	2,324	107	0	0	126	2,557
318	OFFICE AND STORE MACHINERY MFRS.	6,831	464	11	0	423	7,730
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	11,966	1,095	249	0	228	13,539
323	MOTOR VEHICLE MANUFACTURERS	29,371	4	0	0	12,772	42,147
324	TRUCK BODY AND TRAILER MFRS.	2,356	116	174	86	1,072	3,805
325	MOTOR VEHICLE PARTS AND ACCESSORIES	38,326	1,314	173	2	19,719	59,534
326	RAILROAD ROLLING STOCK INDUSTRY	1,983	798	383	233	1,031	4,427
327	SHIPBUILDING AND REPAIR	1,607	112	66	609	411	2,808
328	BOATBUILDING AND REPAIR	-	-	0	-	-	-
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-	-	0	-	-	-
331	MFRS OF SMALL ELECTRICAL APPLIANCES	2,976	345	6	5	75	3,407
332	MANUFACTURERS OF MAJOR APPLIANCES	4,624	347	1	10	453	5,435
333	MANUFACTURERS OF LIGHTING FIXTURES	284	6	0	0	44	334
334	MFRS. OF HOUSEHOLD RADIO AND TV	1,864	950	0	0	30	2,844
335	COMMUNICATIONS EQUIPTMENT MFRS.	20,488	4,160	58	12	1,263	25,980
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	12,177	2,534	22	48	1,715	16,496
338	MFRS OF ELECTRIC WIRE AND CABLE	4,143	547	0	0	351	5,040
339	MFRS OF MISC. ELECTRICAL PRODUCTS	7,025	255	2	16	667	7,966

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SIC	INDUSTRY NAME	CENTRAL ONTARIO	EASTERN ONTARIO	N. EASTERN ONTARIO	N. WESTERN ONTARIO	S. WESTERN ONTARIO	TOTAL ONTARIO
351	CLAY PRODUCTS MANUFACTURERS	1,360	45	15	13	135	1,569
352	CEMENT MANUFACTURERS	764	328	113	12	143	1,360
353	STONE PRODUCTS MANUFACTURERS	10	0	4	2	174	190
354	CONCRETE PRODUCTS MANUFACTURERS	-	-	0	-	-	-
355	READY-MIX CONCRETE MANUFACTURERS	-	-	0	-	-	-
356	GLASS AND GLASS PRODUCTS MFRS.	3,794	991	200	0	1,953	6,938
357	ABRASIVES MANUFACTURERS	898	38	3	0	844	1,783
358	LIME MANUFACTURERS	329	0	2	0	121	453
359	MISC. NON-METALLIC MINERAL PRODS.	1,990	24	2	0	231	4,238
365	PETROLEUM REFINERIES	11,362	0	0	0	800	12,162
369	MISC. PETROLEUM & COAL PRODS. INDS.	120	3	1	0	14	138
372	MANUFACTURERS OF MIXED FERTILIZERS	358	99	1	0	20	479
373	MFRS OF PLASTICS & SYNTHETIC RESINS	2,305	262	37	4	854	3,462
374	MFRS PHARMACEUTICALS AND MEDICINES	8,498	1,173	25	0	403	10,099
375	PAINT AND VARNISH MANUFACTURERS	2,224	0	15	0	1,710	3,949
376	MFRS OF SOAP AND CLEANING COMPOUNDS	5,577	355	26	3	468	6,429
377	MFRS OF TOILET PREPARATIONS	4,224	178	40	0	26	4,468
378	MFRS OF INDUSTRIAL CHEMICALS	8,059	1,819	2,220	14	2,930	15,005
379	MISCELLANEOUS CHEMICAL INDUSTRIES	9,267	420	87	44	1,293	11,109
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	15,190	2,118	127	8	1,074	18,518
392	JEWELLERY AND SILVERWARE INDUSTRY	4,605	621	0	19	890	6,134
393	SPORTING GOODS AND TOY INDUSTRIES	3,699	12	150	189	1,753	5,803
397	SIGNS AND DISPLAYS INDUSTRY	2,924	111	25	4	459	3,524
399	MISC. MANUFACTURING IND. NES	6,674	454	105	6	1,082	8,321
	ALL INDUSTRIES	632,456	69,129	34,103	14,678	127,434	877,800
	MAJOR REGIONS	BRANT	DUNDAS	ALGOMA	KENORA	BRUCE	
		DUFFERIN	FRONTENAC	COCHRANE	RAINEY R.	ELGIN	
		DURHAM	GLENGARRY	MANATOULIN	THUNDER BAY	ESSEX	
		HALIBURTON	GRENVILLE	NIPPISING		GREY	
		HALTON	HASTINGS	PARRY SOUND		HURON	
		HAL-NORFOLK	LANARK	SUDBURY		KENT	
		HAM-WNTWRTH	LEEDS	TIMISKAMING		LAMBTON	
		MUSKOKA	LNNX & ADTN			MIDDLESEX	
		NIAGARA	OTT-CRLTN			OXFORD	
		NORTHMBLND	PRESCOTT			PERTH	
		PEEL	PRNC EDWARD				
		PETERBORO	RENFREW				
		SIMCOE	RUSSEL				
		TORONTO	STORMONT				
		VICTORIA					
		WATERLOO					
		WELLINGTON					
		YORK					

SOURCES: STATISTICS CANADA
MITT COMPANY INFORMATION SYSTEM

TABLE B2
CENTRAL ONTARIO
DISTRIBUTION OF MANUFACTURING EMPLOYMENT, 1985
(NUMBER OF EMPLOYEES)

SIC INDUSTRY NAME	BRANT	DUFFERIN	DURHAM	HALDIMAND - NORFOLK	HALIBURTON*	HALTON	HAMILTON - WENTWORTH	METRO TORONTO	MUSKOKA	NIAGARA	NORTHUMBERLA	PEEL	PETERBOROUGH	SIMCOE
101 MEAT & POULTRY PRODUCTS	722	0	0	0	0	1,095	714	5,411	0	389	0	751	0	0
102 FISH PRODUCTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103 FRUIT & VEGETABLE PROCESSING	225	4	49	174	0	26	591	3,605	5	198	68	305	19	0
104 DAIRY PRODUCTS	144	0	50	77	0	129	431	2,896	0	100	0	1,037	48	0
105 FLOUR & BREAKFAST CEREAL PRODUCTS	0	0	0	0	0	0	4	1,393	0	136	171	65	182	0
106 FEED	81	0	17	0	0	131	58	536	0	102	32	516	698	0
107 BAKERY PRODUCTS	0	0	101	138	0	10	813	7,518	0	336	935	463	0	0
108 MISC. FOODS	255	34	293	46	0	110	1,118	6,750	5	236	356	680	59	0
109 BEVERAGES	41	35	59	0	0	30	248	4,872	0	621	433	93	0	0
151 LEAF TOBACCO PROCESSORS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
153 TOBACCO PRODUCTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
162 RUBBER PRODUCTS	1,271	0	252	370	0	279	3,798	4,535	160	844	153	792	0	0
165 PLASTIC FABRICATING (NES)	91	66	229	156	0	617	60	10,796	183	90	305	1,178	394	0
172 LEATHER TANNERIES	0	0	0	0	0	315	0	382	0	17	0	0	0	0
174 SHOES	0	0	0	0	0	119	767	1,136	0	162	0	258	0	0
175 LEATHER GLOVES	0	0	0	0	0	190	0	12	0	0	0	0	0	0
179 LUGGAGE,HANDBAG & SMALL LEATH.GDS.	104	0	0	0	0	0	0	743	0	380	5	50	12	0
181 COTTON YARN & CLOTH	-	-	-	-	-	-	-	-	-	-	-	-	-	-
182 WOOL YARN & CLOTH	27	0	0	0	0	8	108	364	0	62	0	0	0	0
183 MAN-MADE FIBRE, YARN & CLOTH	224	29	0	0	0	5	269	1,300	0	53	0	3	0	0
184 CORDAGE & TWINE	2	0	4	0	0	146	56	18	0	0	14	3	0	0
185 FELT & FIBRE PROCESSING	0	0	0	0	0	4	0	220	0	10	0	90	0	0
186 CARPETS, MATS & RUGS	145	0	16	0	0	21	0	190	0	15	0	491	0	0
187 CANVAS PRODUCTS, COTTON & JUTE BAGS	0	0	0	0	0	0	191	615	0	18	0	79	105	0
188 AUTO. FABRIC ACCESSORIES	-	-	-	-	-	-	-	-	-	-	-	-	-	
189 MISC. TEXTILES	39	0	14	61	0	57	79	1,052	0	24	5	60	0	0
231 HOSIERY	0	0	0	0	0	85	0	767	0	0	0	9	0	0
239 KNITTING	97	0	32	0	0	5	175	2,473	0	171	0	80	0	0
243 MEN'S CLOTHING	58	0	18	73	0	9	512	8,026	0	174	0	133	129	0
244 WOMEN'S CLOTHING	31	0	10	39	0	5	275	4,316	0	94	0	71	69	0
245 CHILDREN'S CLOTHING	4	0	1	5	0	1	32	502	0	11	0	8	8	0
246 FUR GOODS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
248 FOUNDATION GARMENTS	0	0	0	0	0	0	0	376	0	0	0	0	0	0
249 MISC. CLOTHING	0	0	24	72	0	43	41	694	0	16	0	196	90	0
251 SAWMILLS, PLANING AND SHINGLE MILLS	0	6	0	9	88	0	20	960	62	12	6	8	10	0
252 VENEER AND PLYWOOD MILLS	0	0	11	0	51	0	0	453	71	4	0	3	0	0
254 SASH, DOOR & OTHER MILLWORK PLANTS	221	7	167	12	0	146	191	2,775	188	149	21	340	37	0
256 WOODEN BOX FACTORIES	82	0	145	17	197	53	43	11	63	345	26	107	27	0
258 COFFIN AND CASKET INDUSTRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
259 MISCELLANEOUS WOOD INDUSTRIES	0	0	20	0	0	67	40	597	22	27	0	222	17	0

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SIC	INDUSTRY NAME	BRANT	DUFFERIN	DURHAM	HALDIMAND - NORFOLK	HALIBURTON	HALTON	HAMILTON - WENTWORTH	METRO TORONTO	MUSKOKA	NIAGARA	NORTHUMBERLA	PEEL	PETERBOROUGH	SIMCOE
261	HOUSEHOLD FURNITURE MANUFACTURERS	336	1	391	26	2	85	149	4,295	34	233	82	957	92	243
264	OFFICE FURNITURE MANUFACTURERS	0	0	27	0	0	14	2	2,349	0	3	32	327	8	0
266	MISC. FURNITURE AND FIXTURE MFRS.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
268	ELECTRIC LAMP AND SHADE MFRS.	0	0	5	0	0	0	0	324	0	0	0	154	134	0
271	PULP AND PAPER MILLS	84	0	110	0	0	62	49	2,695	0	763	16	568	220	0
272	ASPHALT ROOFING MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
273	PAPER BOX AND BAG MANUFACTURERS	817	0	218	837	0	728	479	4,048	0	260	25	1,173	153	0
274	MISCELLANEOUS PAPER CONVERTERS	153	14	84	8	0	42	66	4,159	0	302	12	469	136	0
286	COMMERCIAL PRINTING	838	139	1,308	34	0	358	1,013	13,702	0	754	20	2,828	828	0
287	PLATEMAKING, TYPESETTING ETC. IND.	0	0	0	0	0	116	96	943	0	68	0	371	51	0
288	PUBLISHING ONLY	0	8	257	0	0	93	154	4,646	0	97	0	37	13	0
289	PUBLISHING AND PRINTING	62	22	922	375	0	334	296	4,640	0	1,057	44	2,143	556	0
291	IRON AND STEEL MILLS	256	37	336	1,375	0	293	16,071	3,181	10	6,078	57	768	8	0
292	STEEL PIPE AND TUBE MILLS	7	0	5	50	0	15	1,222	304	5	96	0	49	0	0
294	IRON FOUNDRIES	-	-	-	-	-	-	-	-	-	-	-	-	-	-
295	SMELTING AND REFINING	0	0	0	0	0	47	4,394	157	0	450	383	3	428	0
296	ALUMINUM ROLLING, CASTING ETC.	1	6	32	0	0	117	169	849	0	186	0	200	308	0
297	COPPER AND COPPER ALLOY ROLLING ETC.	0	0	7	0	0	18	75	689	10	28	1	22	0	0
298	METAL ROLLING, CASTING ETC. NES	5	0	0	0	0	50	2,056	136	0	111	1	54	27	0
301	BOILER AND PLATE WORKS	0	0	0	0	0	69	0	345	0	649	0	53	0	0
302	FAB. STRUCTURAL METAL INDUSTRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-
303	ORNAMENTAL & ARCHITECTURAL METAL	65	7	84	4	0	209	171	1,836	48	178	14	407	76	0
304	METAL STAMPING, PRESSING AND COATING	351	0	364	0	0	43	197	3,335	324	769	0	338	0	0
305	WIRE AND WIRE PRODUCTS MFRS.	155	29	14	172	0	272	502	2,235	0	1,200	122	315	19	0
306	HARDWARE, TOOL AND CUTLERY MFRS.	139	92	75	56	0	388	312	3,359	15	278	186	1,006	97	0
307	HEATING EQUIPTMENT MFRS.	20	80	0	0	0	155	117	752	0	37	3	523	117	0
308	MACHINE SHOPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
309	MISC. METAL FABRICATING INDS.	4	1	60	595	0	346	270	2,820	19	1,288	87	598	97	0
311	AGRICULTURAL IMPLEMENT INDUSTRY	568	0	26	110	0	130	607	1,343	0	832	20	32	84	0
315	MISC. MACHINERY & EQUIPTMENT MFRS.	1,488	42	362	249	1	850	1,387	6,667	85	1,953	200	2,405	1,022	0
316	COMMERCIAL REFRIG. AIR COND. MFRS.	264	61	2	0	0	17	305	632	0	18	0	707	0	0
318	OFFICE AND STORE MACHINERY MFRS.	0	0	75	6	0	139	146	1,001	0	98	0	2,565	60	1,275
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	0	0	249	0	0	15	81	5,395	0	1,069	0	3,895	142	0
323	MOTOR VEHICLE MANUFACTURERS	0	0	17,584	0	0	9,089	1,041	1,198	0	8	10	365	5	0
324	TRUCK BODY AND TRAILER MFRS.	1,027	0	73	84	2	104	141	369	192	58	2	0	29	0
325	MOTOR VEHICLE PARTS AND ACCESSORIES	558	15	11,143	97	0	5,107	1,764	4,373	201	6,316	374	1,948	52	0
326	RAILROAD ROLLING STOCK INDUSTRY	0	0	0	0	0	216	702	122	0	96	0	45	11	0
327	SHIPBUILDING AND REPAIR	0	4	54	0	0	55	233	372	0	334	34	130	250	0
328	BOATBUILDING AND REPAIR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
331	MFRS OF SMALL ELECTRICAL APPLIANCES	84	72	6	28	0	58	288	1,238	0	94	2	748	21	0
332	MANUFACTURERS OF MAJOR APPLIANCES	93	61	16	0	0	177	136	1,726	79	107	2	1,239	0	0
333	MANUFACTURERS OF LIGHTING FIXTURES	0	0	20	0	0	16	1	127	0	3	0	55	14	0
334	MFRS. OF HOUSEHOLD RADIO AND TV	0	0	2	103	0	0	4	1,097	0	2	0	97	0	0
335	COMMUNICATIONS EQUIPTMENT MFRS.	92	5	197	15	0	511	35	10,181	7	448	17	1,570	46	3,706
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	132	0	193	5	0	553	870	4,588	0	472	17	1,270	501	0
338	MFRS OF ELECTRIC WIRE AND CABLE	0	36	33	143	0	36	23	1,054	62	5	59	196	15	2,288
339	MFRS OF MISC ELECTRICAL PRODUCTS	81	7	105	139	0	322	187	3,991	25	741	34	374	0	0

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SIC	INDUSTRY NAME	BRANT	DUFFERIN	DURHAM	HALDIMAND - NORFOLK	HALIBURTON	HALTON	HAMILTON - WENTWORTH	METRO TORONTO	MUSKOKA	NIAGARA	NORTHUMBERLA	PEEL	PETERBOROUGH	SIMCOE
351	CLAY PRODUCTS MANUFACTURERS	9	0	0	23	0	139	450	246	0	52	2	261	44	0
352	CEMENT MANUFACTURERS	7	0	26	0	0	83	23	215	3	19	9	204	4	0
353	STONE PRODUCTS MANUFACTURERS	0	0	0	0	0	0	0	1	0	0	2	2	0	0
354	CONCRETE PRODUCTS MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
355	READY-MIX CONCRETE MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
356	GLASS AND GLASS PRODUCTS MFRS.	78	53	282	0	0	112	45	2,138	0	458	0	134	49	0
357	ABRASIVES MANUFACTURERS	145	0	0	0	0	23	124	106	0	335	0	151	0	0
358	LIME MANUFACTURERS	0	0	0	0	0	0	329	0	0	0	0	0	0	0
359	MISC. NON-METALLIC MINERAL PRODS.	37	0	45	165	0	93	280	757	0	63	9	67	135	0
365	PETROLEUM REFINERIES	238	0	16	0	0	103	11	9,304	0	1,128	8	393	0	0
369	MISC. PETROLEUM & COAL PRODS. INDS.	0	0	0	0	0	2	2	106	0	1	0	4	0	0
372	MANUFACTURERS OF MIXED FERTILIZERS	16	0	0	23	0	0	137	17	0	4	0	20	0	0
373	MFRS OF PLASTICS & SYNTHETIC RESINS	98	9	40	4	0	47	9	1,089	0	317	24	187	0	0
374	MFRS PHARMACEUTICALS AND MEDICINES	0	47	80	0	0	129	16	4,937	0	516	0	1,918	0	0
375	PAINT AND VARNISH MANUFACTURERS	21	0	6	0	0	77	27	1,138	0	66	34	605	46	0
376	MFRS OF SOAP AND CLEANING COMPOUNDS	319	12	14	59	0	181	337	3,247	0	15	22	837	133	0
377	MFRS OF TOILET PREPARATIONS	340	18	0	31	0	58	1	2,795	0	11	0	729	0	0
378	MFRS OF INDUSTRIAL CHEMICALS	11	0	89	16	0	94	260	5,202	4	974	105	571	330	0
379	MISCELLANEOUS CHEMICAL INDUSTRIES	441	27	91	0	0	417	231	4,764	22	962	51	1,292	163	0
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	628	0	29	25	0	381	173	7,771	0	289	35	1,777	302	2,338
392	JEWELLERY AND SILVERWARE INDUSTRY	0	0	18	0	0	0	82	[illegible]	0	265	0	80	0	0
393	SPORTING GOODS AND TOY INDUSTRIES	114	0	62	0	0	0	288	2,046	0	22	17	454	0	0
397	SIGNS AND DISPLAYS INDUSTRY	316	24	27	0	0	60	71	1,398	0	35	43	475	9	0
399	MISC. MANUFACTURING IND. NES	330	55	58	16	0	202	226	3,804	85	119	26	745	78	0
	ALL INDUSTRIES	15,552	1,460	31,121	6,823	444	26,275	61,420	261,693	2,043	41,091	4,652	58,295	9,613	17,644
	MAJOR MFRG. COMMUNITIES	BRANTFORD BRUFORD CATHCART PARIS PORT DOVER ST GEORGE	GRD. VALLEY ORANGEVILLE ROSEMONT SHELBURNE	AJAX ASHBURN BEAVERTON BLACKSTOCK BOWMANVILLE BROOKLIN CANNINGTON GOODWOOD NEWCASTLE ORONO OSHAWA PICKERING PORT PERRY SUNDERLAND UXBRIDGE WHITBY	CALEDONIA CAYUGA COURTLAND DEHLI DUNNVILLE HAGERSVILLE JARVIS NANTICOKE SIMCOE WATERFORD	CARDIFF HARCOURT WILBERFORCE	ACTON BURLINGTON CAMPBELLVL GEORGETOWN HALTON HLS HORNBY NORVAL MILTON OAKVILLE	ANCASTER BINBROOK DUNDAS FREELTON FRUITLAND GREENSVILLE HAMILTON HANNON MOUNT HOPE STONEY CR. VINEMOUNT WATERDOWN WINONA	AGINCOURT DON MILLS DOWNSVIEW ETOBICOKE ISLINGTON NORTH YORK REXDALE SCARBOROUGH TORONTO WEST HILL WESTON WILLOWDALE	BRACEBRIDGE DWIGHT GRAVENHURST HUNTSVILLE SEVERN BRGE	FORT ERIE GRIMSBY JORDAN STN NIAGARA F. NIAGARA OTL PELHAM P. COLBORNE P. ROBINSON RIDGEVILLE RIDGEWAY ST ANNS ST CTHNS ST DAVIDS SHERKSTON SMITHVILLE STEVENSVL THOROLD VINELAND VINELAND STN VIRGIL WAINFLEET WELLAND	BALTIMORE BRIGHTON CAMPBELLFRD COBURG COLBORNE HASTINGS PORT HOPE WARKWORTH	BOLTON BRAMALEA BRAMPTON CALEDON CLARKSON COOKSVILLE HUTTONVILLE INGLEWOOD MALTON MILLGROVE MISSISSAUGA PORT CREDIT STREETSVILLE	BRIDGENORTH CAVAN HAVELOCK LAKEFIELD MARMORA MILLBROOK OMEMEE PETERBORO WARSAW	ALLISTON BARRIE BRADFORD CHURCHILL COLLINGWOOD COOKSTOWN CREEMORE ELMVALE HOLLAND L LONGFOED M MIDLAND NEW LOWELL ORILLIA PENATANG STAYNER THORNTON TOTTENHAM VIC HARB

TABLE B2 - CONTINUED
CENTRAL ONTARIO
DISTRIBUTION OF MANUFACTURING EMPLOYMENT, 1985
(NUMBER OF EMPLOYEES)

SIC INDUSTRY NAME	VICTORIA	WATERLOO	WELLINGTON	YORK	TOTAL
101 MEAT & POULTRY PRODUCTS	0	2,888	509	7	12,485
102 FISH PRODUCTS	-	-	-	-	-
103 FRUIT & VEGETABLE PROCESSING	0	27	8	113	5,418
104 DAIRY PRODUCTS	0	1,288	149	24	6,373
105 FLOUR & BREAKFAST CEREAL PRODUCTS	0	310	0	16	2,276
106 FEED	14	602	226	17	3,030
107 BAKERY PRODUCTS	0	2,109	0	66	12,490
108 MISC. FOODS	92	1,745	15	81	11,873
109 BEVERAGES	0	374	23	16	6,847
151 LEAF TOBACCO PROCESSORS	-	-	-	-	-
153 TOBACCO PRODUCTS	-	-	-	-	-
162 RUBBER PRODUCTS	90	3,231	367	92	16,234
165 PLASTIC FABRICATING (NES)	39	864	788	1,979	17,836
172 LEATHER TANNERIES	0	434	0	81	1,228
174 SHOES	0	2,061	106	56	4,665
175 LEATHER GLOVES	0	344	0	0	546
179 LUGGAGE,HANDBAG & SMALL LEATH.GDS.	0	53	117	38	1,503
181 COTTON YARN & CLOTH	-	-	-	-	-
182 WOOL YARN & CLOTH	0	267	0	0	834
183 MAN-MADE FIBRE, YARN & CLOTH	38	676	552	23	3,171
184 CORDAGE & TWINE	0	51	10	0	303
185 FELT & FIBRE PROCESSING	0	423	0	0	747
186 CARPETS, MATS & RUGS	2	362	0	23	1,263
187 CANVAS PRODUCTS, COTTON & JUTE BAGS	0	30	19	21	1,078
188 AUTO. FABRIC ACCESSORIES	-	-	-	-	-
189 MISC. TEXTILES	0	123	72	63	1,650
231 HOSIERY	0	158	60	0	1,078
239 KNITTING	0	220	0	14	3,265
243 MEN'S CLOTHING	41	1,502	330	32	11,035
244 WOMEN'S CLOTHING	22	808	177	17	5,935
245 CHILDREN'S CLOTHING	3	94	21	2	690
246 FUR GOODS	-	-	-	-	-
248 FOUNDATION GARMENTS	0	265	0	0	641
249 MISC. CLOTHING	0	83	143	10	1,410
251 SAWMILLS, PLANING AND SHINGLE MILLS	1	4	32	38	1,257
252 VENEER AND PLYWOOD MILLS	1	41	14	15	664
254 SASH, DOOR & OTHER MILLWORK PLANTS	18	296	29	226	4,824
256 WOODEN BOX FACTORIES	3	64	121	28	1,333
258 COFFIN AND CASKET INDUSTRY	74	0	89	0	163
259 MISCELLANEOUS WOOD INDUSTRIES	11	270	51	224	1,567

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SIC INDUSTRY NAME	VICTORIA	WATERLOO	WELLINGTON	YORK	TOTAL
261 HOUSEHOLD FURNITURE MANUFACTURERS	72	2,260	288	620	10,166
264 OFFICE FURNITURE MANUFACTURERS	0	532	55	331	3,681
266 MISC. FURNITURE AND FIXTURE MFRS.	-	-	-	-	-
268 ELECTRIC LAMP AND SHADE MFRS	0	0	0	2	619
271 PULP AND PAPER MILLS	0	0	12	23	4,601
272 ASPHALT ROOFING MANUFACTURERS	-	-	-	-	-
273 PAPER BOX AND BAG MANUFACTURERS	24	323	318	360	9,766
274 MISCELLANEOUS PAPER CONVERTERS	2	112	149	44	5,752
286 COMMERCIAL PRINTING	7	741	549	973	24,250
287 PLATEMAKING, TYPESETTING ETC. IND.	0	365	23	0	2,034
288 PUBLISHING ONLY	98	199	0	213	5,814
289 PUBLISHING AND PRINTING	0	588	0	397	11,435
291 IRON AND STEEL MILLS	437	705	663	33	30,306
292 STEEL PIPE AND TUBE MILLS	0	10	22	30	1,814
294 IRON FOUNDRIES	-	-	-	-	-
295 SMELTING AND REFINING	0	5	0	59	5,926
296 ALUMINUM ROLLING, CASTING ETC.	0	84	27	882	2,860
297 COPPER AND COPPER ALLOY ROLLING ETC.	0	48	203	35	1,136
298 METAL ROLLING, CASTING ETC. NES	0	36	0	27	2,503
301 BOILER AND PLATE WORKS	0	2,049	0	157	3,322
302 FAB. STRUCTURAL METAL INDUSTRY	-	-	-	-	-
303 ORNAMENTAL & ARCHITECTURAL METAL	0	189	79	260	3,627
304 METAL STAMPING, PRESSING AND COATING	0	2,282	534	314	8,852
305 WIRE AND WIRE PRODUCTS MFRS.	0	223	154	83	5,497
306 HARDWARE, TOOL AND CUTLÉRY MFRS.	4	1,816	112	294	8,230
307 HEATING EQUIPTMENT MFRS.	0	838	0	42	2,683
308 MACHINE SHOPS	-	-	-	-	-
309 MISC. METAL FABRICATING INDS.	5	881	289	233	7,592
311 AGRICULTURAL IMPLEMENT INDUSTRY	0	154	134	44	4,083
315 MISC. MACHINERY & EQUIPTMENT MFRS.	48	2,359	783	1,462	21,354
316 COMMERCIAL REFRIG. AIR COND. MFRS.	0	166	108	44	2,324
318 OFFICE AND STORE MACHINERY MFRS.	0	551	82	834	6,831
321 AIRCFRAFT & AIRCRAFT PARTS MFRS.	3	942	64	110	11,966
323 MOTOR VEHICLE MANUFACTURERS	0	2	0	69	29,371
324 TRUCK BODY AND TRAILER MFRS.	78	53	0	151	2,356
325 MOTOR VEHICLE PARTS AND ACCESSORIES	35	3,538	733	2,073	38,326
326 RAILROAD ROLLING STOCK INDUSTRY	784	0	0	7	1,983
327 SHIPBUILDING AND REPAIR	0	110	0	34	1,607
328 BOATBUILDING AND REPAIR	-	-	-	-	-
329 MISCELLANEOUS VEHICLE MANUFACTURERS	-	-	-	-	-
331 MFRS OF SMALL ELECTRICAL APPLIANCES	0	121	189	28	2,976
332 MANUFACTURERS OF MAJOR APPLIANCES	8	489	349	143	4,624
333 MANUFACTURERS OF LIGHTING FIXTURES	0	11	29	8	284
334 MFRS. OF HOUSEHOLD RADIO AND TV	69	252	9	228	1,864
335 COMMUNICATIONS EQUIPTMENT MFRS.	85	974	574	2,028	20,488
336 MFRS ELECTRICAL INDUSTRIAL EQUIP.	0	1,052	600	1,924	12,177
338 MFRS OF ELECTRIC WIRE AND CABLE	0	48	131	16	4,143
339 MFRS OF MISC. ELECTRICAL PRODUCTS	0	548	100	373	7,025

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SIC INDUSTRY NAME	VICTORIA	WATERLOO	WELLINGTON	YORK	TOTAL
351 CLAY PRODUCTS MANUFACTURERS	0	129	0	6	1,360
352 CEMENT MANUFACTURERS	0	114	13	36	764
353 STONE PRODUCTS MANUFACTURERS	0	4	0	0	10
354 CONCRETE PRODUCTS MANUFACTURERS	-	-	-	-	-
355 READY-MIX CONCRETE MANUFACTURERS	-	-	-	-	-
356 GLASS AND GLASS PRODUCTS MFRS.	0	39	0	405	3,794
357 ABRASIVES MANUFACTURERS	0	8	0	6	898
358 LIME MANUFACTURERS	0	0	0	0	329
359 MISC. NON-METALLIC MINERAL PRODS.	274	29	14	24	1,990
365 PETROLEUM REFINERIES	0	37	29	15	11,362
369 MISC. PETROLEUM & COAL PRODS. INDS.	0	3	0	2	120
372 MANUFACTURERS OF MIXED FERTILIZERS	9	99	33	2	358
373 MFRS OF PLASTICS & SYNTHETIC RESINS	29	384	33	36	2,305
374 MFRS PHARMACEUTICALS AND MEDICINES	0	108	283	464	8,498
375 PAINT AND VARNISH MANUFACTURERS	0	0	26	179	2,224
376 MFRS OF SOAP AND CLEANING COMPOUNDS	0	29	27	345	5,577
377 MFRS OF TOILET PREPARATIONS	0	3	0	239	4,224
378 MFRS OF INDUSTRIAL CHEMICALS	7	323	60	13	8,059
379 MISCELLANEOUS CHEMICAL INDUSTRIES	1	402	256	145	9,267
391 SCIENTIFIC AND PROFFESSIONAL EQUIP.	6	759	75	602	15,190
392 JEWELLERY AND SILVERWARE INDUSTRY	0	6	439	364	4,605
393 SPORTING GOODS AND TOY INDUSTRIES	0	346	35	316	3,699
397 SIGNS AND DISPLAYS INDUSTRY	19	202	37	207	2,924
399 MISC. MANUFACTURING IND. NES	32	559	115	221	6,674
ALL INDUSTRIES	2,517	51,023	15,292	25,500	632,456
MAJOR MFRG. COMMUNITIES	BOBCAYGEON FENELON F LINDSAY	AYR BRADEN BRESLAU CAMBRIDGE ELMIRA HAWKESVILLE HEIDELBURG KITCHENER MARYHILL NEW DUNDEE NEW HAMBURG PETERSBURG ST JACOBS WALLENSTEIN WATERLOO WELLESLEY	ALMA ARISS ARTHUR BRESLAU CLIFFORD EDEN MILLS ELORA ERIN FERGUS GUELPH HARRISTON HILLSBURGH MOOREFIELD MOUNT FRST PALMERSTON PUSLINCH ROCKWOOD	AURORA CONCORD GORMLEY JCKSN'S PT. KESWICK KING CITY MAPLE MARKHAM MILLIKEN NEWMARKET NOBLETON OAK RIDGES PEFFERLAW RICHMOND HL SCOMBERG STOUFVILLE SUTTON THORNHILL UNIONVILLE VANDORF VAUGHAN WOODBRIDGE	

TABLE B3
EASTERN ONTARIO
DISTRIBUTION OF MANUFACTURING EMPLOYMENT, 1985
(NUMBER OF EMPLOYEES)

SIC	INDUSTRY NAME	DUNDAS	FRONTENAC	GLENGARRY	GRENVILLE	HASTINGS	LANARK	LÉEDS	LENNOX & ADDINGTON	OTTAWA - CARELTON	PRESCOTT	PRINCE EDWARD	RENFREW	RUSSEL	STORMONT	TOTAL
101	MEAT & POULTRY PRODUCTS	0	0	0	0	87	0	0	0	88	0	48	0	0	0	223
102	FISH PRODUCTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103	FRUIT & VEGETABLE PROCESSING	0	60	0	0	137	0	0	0	20	0	109	0	1	104	430
104	DAIRY PRODUCTS	839	161	109	0	332	74	25	142	79	0	3	0	1	24	1,790
105	FLOUR & BREAKFAST CEREAL PRODUCTS	0	0	0	0	7	7	80	0	0	0	0	0	0	14	107
106	FEED	8	0	0	43	0	0	6	0	0	0	0	0	0	38	95
107	BAKERY PRODUCTS	0	465	0	0	118	0	0	0	44	0	0	0	0	0	627
108	MISC. FOODS	511	221	49	0	264	0	183	3	147	29	20	0	0	51	1,477
109	BEVERAGES	0	98	0	0	333	0	14	0	80	0	41	0	1	226	792
151	LEAF TOBACCO PROCESSORS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
153	TOBACCO PRODUCTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
162	RUBBER PRODUCTS	0	0	0	0	178	108	6	0	60	31	0	0	0	652	1,036
165	PLASTIC FABRICATING (NES)	3	13	13	61	206	0	43	93	74	62	0	0	0	202	770
172	LEATHER TANNERIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	SHOES	0	0	246	0	1,157	1,375	0	0	7	0	0	0	1	34	2,819
175	LEATHER GLOVES	0	0	0	44	0	0	0	0	0	0	0	282	0	0	325
179	LUGGAGE,HANDBAG & SMALL LEATH GDS.	0	341	0	0	30	0	0	0	52	13	0	0	0	49	485
181	COTTON YARN & CLOTH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
182	WOOL YARN & CLOTH	0	63	0	0	0	0	0	0	0	0	0	0	0	0	63
183	MAN-MADE FIBRE, YARN & CLOTH	0	1,471	153	536	138	167	0	1,159	0	722	0	0	5	54	4,405
184	CORDAGE & TWINE	0	0	0	0	59	0	0	0	0	0	0	0	0	0	59
185	FELT & FIBRE PROCESSING	0	0	0	0	0	100	0	0	0	0	0	0	0	0	100
186	CARPETS, MATS & RUGS	0	0	0	0	83	0	0	0	1	0	0	0	0	82	166
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	0	0	0	0	42	0	0	0	39	0	0	0	4	58	144
188	AUTO. FABRIC ACCESSORIES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
189	MISC. TEXTILES	34	11	0	0	16	0	0	0	6	27	0	0	1	39	134
231	HOSIERY	0	0	0	0	164	0	0	0	0	0	0	0	0	0	164
239	KNITTING	0	137	0	45	0	360	0	0	8	0	0	0	0	0	549
243	MEN'S CLOTHING	0	43	0	85	95	55	0	0	32	197	0	52	2	100	660
244	WOMEN'S CLOTHING	0	23	0	46	51	29	0	0	17	106	0	28	1	54	355
245	CHILDREN'S CLOTHING	0	3	0	5	6	3	0	0	2	12	0	3	0	6	41
246	FUR GOODS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
248	FOUNDATION GARMENTS	0	0	0	0	0	0	0	0	317	272	0	0	15	0	604
249	MISC CLOTHING	0	3	0	6	58	0	0	0	10	0	0	36	1	0	113
251	SAWMILLS, PLANING AND SHINGLE MILLS	7	8	0	3	33	45	0	0	4	25	0	0	7	9	141
252	VENEER AND PLYWOOD MILLS	0	0	0	0	18	3	0	0	0	0	0	108	1	0	130
254	SASH, DOOR & OTHER MILLWORK PLANTS	58	84	180	0	13	25	0	62	118	85	7	0	7	50	688
256	WOODEN BOX FACTORIES	10	13	0	0	57	11	4	0	8	0	0	0	0	5	108
258	COFFIN AND CASKET INDUSTRY	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15
259	MISCELLANEOUS WOOD INDUSTRIES	0	0	180	0	0	0	0	0	65	0	0	87	2	64	397

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SIC	INDUSTRY NAME	DUNDAS	FRONTENAC	GLENGARRY	GRENVILLE	HASTINGS	LANARK	LEEDS	LENNOX & ADDINGTON	OTTAWA - CARELTON	PRESCOTT	PRINCE EDWARD	RENFREW	RUSSEL	STORMONT	TOTAL
261	HOUSEHOLD FURNITURE MANUFACTURERS	57	0	41	5	131	0	276	238	52	12	0	70	1	84	966
264	OFFICE FURNITURE MANUFACTURERS	0	202	0	0	29	0	0	0	21	0	0	0	6	0	258
266	MISC. FURNITURE AND FIXTURE MFRS.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
268	ELECTRIC LAMP AND SHADE MFRS.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
271	PULP AND PAPER MILLS	0	0	0	0	542	0	0	264	271	58	0	2,708	0	6	3,850
272	ASPHALT ROOFING MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
273	PAPER BOX AND BAG MANUFACTURERS	0	176	0	179	157	13	0	0	30	0	0	25	2	74	655
274	MISCELLANEOUS PAPER CONVERTERS	0	3	0	42	484	0	0	0	60	0	0	2,059	1	28	2,677
286	COMMERCIAL PRINTING	7	132	0	167	645	66	93	0	1,893	0	0	0	10	192	3,204
287	PLATEMAKING, TYPESETTING ETC. IND.	0	0	0	0	0	0	0	0	128	0	0	0	0	0	128
288	PUBLISHING ONLY	0	0	0	34	0	0	0	0	295	0	0	0	0	7	335
289	PUBLISHING AND PRINTING	15	1,276	0	99	0	111	0	0	664	0	0	0	0	171	2,335
291	IRON AND STEEL MILLS	0	32	18	48	251	29	98	0	44	390	6	0	5	214	1,141
292	STEEL PIPE AND TUBE MILLS	0	0	0	0	0	0	0	0	0	0	0	0	0	10	11
294	IRON FOUNDRIES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
295	SMELTING AND REFINING	0	0	0	0	179	0	0	0	288	0	7	0	10	68	553
296	ALUMINUM ROLLING, CASTING ETC.	5	369	22	38	4	52	180	0	2	0	0	0	2	5	679
297	COPPER AND COPPER ALLOY ROLLING ETC.	3	0	14	18	0	33	113	0	0	0	0	0	0	1	181
298	METAL ROLLING, CASTING ETC. NES	2	0	0	0	49	26	0	0	1	0	0	0	0	0	80
301	BOILER AND PLATE WORKS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
302	FAB. STRUCTURAL METAL INDUSTRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
303	ORNAMENTAL & ARCHITECTURAL METAL	2	52	25	4	177	19	70	25	124	54	0	0	1	145	697
304	METAL STAMPING, PRESSING AND COATING	0	0	0	0	0	0	35	0	27	10	0	0	0	581	653
305	WIRE AND WIRE PRODUCTS MFRS.	3	28	0	1	22	118	128	12	5	0	0	0	0	24	341
306	HARDWARE, TOOL AND CUTLERY MFRS.	12	196	0	72	367	117	0	0	22	0	0	0	2	364	1,152
307	HEATING EQUIPTMENT MFRS.	0	43	0	0	123	0	135	0	0	0	0	0	0	53	352
308	MACHINE SHOPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
309	MISC. METAL FABRICATING INDS.	29	0	16	4	121	36	27	20	164	6	0	208	1	50	682
311	AGRICULTURAL IMPLEMENT INDUSTRY	0	32	0	0	60	0	37	0	3	0	0	0	0	0	149
315	MISC. MACHINERY & EQUIPTMENT MFRS.	0	230	38	22	491	239	430	26	1,142	41	11	27	4	438	3,138
316	COMMERCIAL REFRIG. AIR COND. MFRS.	0	3	6	0	6	0	19	0	60	0	0	0	0	12	107
318	OFFICE AND STORE MACHINERY MFRS.	0	6	35	0	16	6	57	0	334	0	3	0	0	9	464
321	AIRCRAFT & AIRCRAFT PARTS MFRS.	0	172	0	0	669	36	0	0	187	0	0	0	11	20	1,095
323	MOTOR VEHICLE MANUFACTURERS	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
324	TRUCK BODY AND TRAILER MFRS.	0	0	43	37	3	0	0	0	7	25	0	0	1	0	116
325	MOTOR VEHICLE PARTS AND ACCESSORIES	0	91	0	49	180	8	147	10	52	43	0	0	2	732	1,314
326	RAILROAD ROLLING STOCK INDUSTRY	0	0	88	70	176	0	0	464	0	0	0	0	0	0	798
327	SHIPBUILDING AND REPAIR	0	0	80	0	0	0	0	0	10	0	0	0	0	22	112
328	BOATBUILDING AND REPAIR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
331	MFRS OF SMALL ELECTRICAL APPLIANCES	0	22	0	0	0	0	238	13	11	0	5	0	1	48	345
332	MANUFACTURERS OF MAJOR APPLIANCES	0	19	0	0	46	0	102	0	57	0	0	0	1	120	347
333	MANUFACTURERS OF LIGHTING FIXTURES	0	0	0	0	0	3	0	0	0	0	0	0	0	3	6
334	MFRS. OF HOUSEHOLD RADIO AND TV	0	0	0	99	0	0	0	0	847	0	0	0	0	4	950
335	COMMUNICATIONS EQUIPTMENT MFRS.	11	0	0	4	1,569	402	560	0	1,527	38	0	0	0	49	4,160
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	0	19	0	128	655	100	23	166	1,361	3	0	0	6	74	2,534
338	MFRS OF ELECTRIC WIRE AND CABLE	0	170	0	69	106	0	171	0	18	0	0	0	0	13	547
339	MFRS OF MISC. ELECTRICAL PRODUCTS	10	4	0	0	35	102	45	0	11	0	0	0	1	48	255

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SIC	INDUSTRY NAME	DUNDAS	FRONTENAC	GLENGARRY	GRENVILLE	HASTINGS	LANARK	LEEDS	LENNOX & ADDINGTON	OTTAWA - CARELTON	PRESCOTT	PRINCE EDWARD	RENFREW	RUSSEL	STORMONT	TOTAL
351	CLAY PRODUCTS MANUFACTURERS	0	24	0	0	0	0	0	0	21	0	0	0	0	0	45
352	CEMENT MANUFACTURERS	2	15	0	0	8	0	58	48	76	0	114	0	0	6	328
353	STONE PRODUCTS MANUFACTURERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
354	CONCRETE PRODUCTS MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
355	READY-MIX CONCRETE MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
356	GLASS AND GLASS PRODUCTS MFRS.	0	0	0	0	49	0	0	0	78	474	0	0	0	390	991
357	ABRASIVES MANUFACTURERS	0	0	0	0	0	0	38	0	0	0	0	0	0	0	38
358	LIME MANUFACTURERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
359	MISC. NON-METALLIC MINERAL PRODS.	0	5	0	0	11	4	0	0	3	0	0	0	0	0	24
365	PETROLEUM REFINERIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
369	MISC. PETROLEUM & COAL PRODS. INDS.	0	0	0	0	0	0	2	0	1	0	0	0	0	0	3
372	MANUFACTURERS OF MIXED FERTILIZERS	0	0	0	97	0	0	0	0	0	0	0	0	0	2	99
373	MFRS OF PLASTICS & SYNTHETIC RESINS	7	1	0	91	49	2	2	0	0	98	0	0	1	11	262
374	MFRS PHARMACEUTICALS AND MEDICINES	0	0	0	0	151	147	241	0	412	0	0	0	1	222	1,173
375	PAINT AND VARNISH MANUFACTURERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
376	MFRS OF SOAP AND CLEANING COMPOUNDS	23	0	0	0	68	168	3	0	27	0	0	0	0	65	355
377	MFRS OF TOILET PREPARATIONS	35	0	0	0	64	0	0	0	0	0	0	0	0	79	178
378	MFRS OF INDUSTRIAL CHEMICALS	0	0	0	366	63	30	0	0	1,322	22	0	0	4	13	1,819
379	MISCELLANEOUS CHEMICAL INDUSTRIES	26	16	0	114	17	0	160	0	35	28	0	0	0	24	420
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	23	75	11	0	74	280	113	0	1,415	4	5	0	2	116	2,118
392	JEWELLERY AND SILVERWARE INDUSTRY	0	0	0	0	367	228	0	0	26	0	0	0	0	0	621
393	SPORTING GOODS AND TOY INDUSTRIES	0	0	0	0	9	0	0	0	2	0	0	0	0	1	12
397	SIGNS AND DISPLAYS INDUSTRY	0	18	0	0	36	0	0	0	50	0	0	0	0	6	111
399	MISC. MANUFACTURING IND. NES	14	91	1	10	72	15	52	0	90	30	0	0	2	78	454
	ALL INDUSTRIES	1,834	5,465	1,187	3,013	11,761	4,569	6,062	2,289	16,376	3,146	583	6,080	125	6,649	69,129
	MAJOR MFRG. COMMUNITIES	CHESTERVL IROQUOIS MOREWOOD MORRISBURG WILLIAMSBRG WINCHESTER	ELGINBURG HARROWSMITH INVERARY KINGSTON LANARK OMPAH SMITHS F. VERONA WESTBROOK WOLFE IS.	ALFRED APPLE HILL ALEXANDRIA SUMMERSTOWN N. LANCSTR WILLIAMSTN.	JOHNSTOWN KEMPTVILLE MAITLAND MERRICKVL PRESCOTT	BANCROFT BATAWA BELLVILLE COE HILL CORBYVILLE DESERONTO ELDORADO FRANKFORD FOXBORO L'AMABLE MADOC STIRLING TRENTON TWEED	ALMONTE BALDERSON CRLTON PL. PAKENHAM PERTH RIDEAU FRRY SMITH F.	ADDISON ATHENS' BROCKVILLE CARDINAL DELTA ELGIN FRANKVILLE GANANOQUE JASPER	BATH MILLHAVEN NAPANEE ODESSA	ASHTON CARP GLOUCESTER KANATA METCALFE MANOTICK NAPEAN OSGOODE OTTAWA RICHMOND STITTSVILLE	HAWKESBURY L'ORIGINAL PLANTAGENET ST IS PSCT VANKLEEK H.	BLOOMFIELD CARRYING P. CHERRY V. MILFORD PICTON WELLINGTON	ARNPRIOR BARRY'S BAY BEACHBURG BONNECHERE BRAESIDE BURNSTOWN COBDEN COMBERMERE EGANVILLE HALEY HALEY STN KILLALOE PALMER RAP PEMBROKE QUADVILLE RENFREW ROUND L C	ROCKLAND BOURGET	CORNWALL LONG SAULT INGLESIDE	

TABLE 84
NORTHEASTERN ONTARIO
DISTRIBUTION OF MANUFACTURING EMPLOYMENT, 1985
(NUMBER OF EMPLOYEES)

SIC INDUSTRY NAME	ALGOMA	COCHRANE	MANITOULIN	NIPPISING	PARRY SOUND	SUDBURY	TIMISKAMING	TOTAL
101 MEAT & POULTRY PRODUCTS	0	37	0	25	0	29	0	91
102 FISH PRODUCTS	-	-	-	-	-	-	-	0
103 FRUIT & VEGETABLE PROCESSING	23	0	0	0	0	5	0	27
104 DAIRY PRODUCTS	32	0	0	0	0	86	49	166
105 FLOUR & BREAKFAST CEREAL PRODUCTS	6	0	0	0	0	0	0	6
106 FEED	10	0	0	0	0	20	0	30
107 BAKERY PRODUCTS	0	0	0	0	0	0	0	0
108 MISC. FOODS	13	0	0	0	21	5	0	46
109 BEVERAGES	305	69	0	0	0	62	13	449
151 LEAF TOBACCO PROCESSORS	-	-	-	-	-	-	-	0
153 TOBACCO PRODUCTS	-	-	-	-	-	-	-	0
162 RUBBER PRODUCTS	32	0	0	98	0	154	0	285
165 PLASTIC FABRICATING (NES)	0	0	0	58	0	78	53	189
172 LEATHER TANNERIES	0	0	0	0	0	0	0	0
174 SHOES	0	0	0	0	0	0	0	0
175 LEATHER GLOVES	0	0	0	0	0	0	0	0
179 LUGGAGE,HANDBAG & SMALL LEATH.GDS.	0	0	0	11	39	38	0	88
181 COTTON YARN & CLOTH	-	-	-	-	-	-	-	0
182 WOOL YARN & CLOTH	0	0	0	0	0	0	0	0
183 MAN-MADE FIBRE, YARN & CLOTH	0	0	0	254	0	250	0	504
184 CORDAGE & TWINE	1	0	0	0	0	7	0	8
185 FELT & FIBRE PROCESSING	0	0	0	0	0	0	0	0
186 CARPETS, MATS & RUGS	0	0	0	0	0	11	0	11
187 CANVAS PRODUCTS, COTTON & JUTE BAGS	0	0	0	24	0	0	0	24
188 AUTO. FABRIC ACCESSORIES	-	-	-	-	-	-	-	0
189 MISC. TEXTILES	0	0	0	7	0	32	0	39
231 HOSIERY	0	0	0	0	0	0	0	0
239 KNITTING	0	0	0	0	0	123	0	123
243 MEN'S CLOTHING	4	0	0	6	0	72	0	82
244 WOMEN'S CLOTHING	2	0	0	3	0	39	0	44
245 CHILDREN'S CLOTHING	0	0	0	0	0	4	0	5
246 FUR GOODS	-	-	-	-	-	-	-	0
248 FOUNDATION GARMENTS	0	0	0	0	0	0	0	0
249 MISC. CLOTHING	0	0	0	2	0	0	0	2
251 SAWMILLS, PLANING AND SHINGLE MILLS	473	1,706	0	232	61	168	55	2,695
252 VENEER AND PLYWOOD MILLS	56	309	0	23	0	0	88	476
254 SASH, DOOR & OTHER MILLWORK PLANTS	143	9	0	137	116	72	0	477
256 WOODEN BOX FACTORIES	0	0	0	0	27	6	0	33
258 COFFIN AND CASKET INDUSTRY	0	0	0	0	0	0	0	0
259 MISCELLANEOUS WOOD INDUSTRIES	47	11	0	82	3	0	0	144

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SIC	INDUSTRY NAME	ALGOMA	COCHRANE	MANATOULIN	NIPPISING	PARRY SOUND	SUDBURY	TIMISKAMING	TOTAL
261	HOUSEHOLD FURNITURE MANUFACTURERS	156	9	0	67	0	58	67	357
264	OFFICE FURNITURE MANUFACTURERS	0	0	0	0	0	24	0	24
266	MISC. FURNITURE AND FIXTURE MFRS.	-	-	-	-	-	-	-	0
268	ELECTRIC LAMP AND SHADE MFRS.	0	0	0	0	0	0	0	0
271	PULP AND PAPER MILLS	351	2,732	0	322	0	1,311	0	4,716
272	ASPHALT ROOFING MANUFACTURERS	-	-	-	-	-	-	-	0
273	PAPER BOX AND BAG MANUFACTURERS	0	0	0	41	0	0	8	49
274	MISCELLANEOUS PAPER CONVERTERS	0	0	0	0	0	779	0	779
286	COMMERCIAL PRINTING	43	0	0	0	0	10	0	53
287	PLATEMAKING, TYPESETTING ETC IND.	0	0	0	0	0	0	0	0
288	PUBLISHING ONLY	0	0	0	0	0	4	0	4
289	PUBLISHING AND PRINTING	0	0	0	0	0	0	654	654
291	IRON AND STEEL MILLS	5,034	0	0	70	8	235	137	5,484
292	STEEL PIPE AND TUBE MILLS	867	0	0	0	0	4	0	872
294	IRON FOUNDRIES	-	-	-	-	-	-	-	0
295	SMELTING AND REFINING	117	0	0	0	0	0	0	117
296	ALUMINUM ROLLING, CASTING ETC.	0	0	0	33	0	14	0	47
297	COPPER AND COPPER ALLOY ROLLING ETC.	4	0	0	20	0	0	0	25
298	METAL ROLLING, CASTING ETC. NES	0	0	0	10	0	0	0	10
301	BOILER AND PLATE WORKS	0	0	0	0	0	0	0	0
302	FAB. STRUCTURAL METAL INDUSTRY	-	-	-	-	-	-	-	0
303	ORNAMENTAL & ARCHITECTURAL METAL	14	11	0	26	4	108	0	164
304	METAL STAMPING, PRESSING AND COATING	86	0	0	0	0	0	0	86
305	WIRE AND WIRE PRODUCTS MFRS.	2	7	0	8	0	47	22	87
306	HARDWARE, TOOL AND CUTLERY MFRS.	0	12	0	31	0	0	37	80
307	HEATING EQUIPMENT MFRS.	0	0	0	0	0	37	0	37
308	MACHINE SHOPS	-	-	-	-	-	-	-	0
309	MISC. METAL FABRICATING INDS.	54	15	0	164	90	26	0	349
311	AGRICULTURAL IMPLEMENT INDUSTRY	0	0	0	0	0	11	24	35
315	MISC. MACHINERY & EQUIPTMENT MFRS.	59	57	0	410	83	344	128	1,081
316	COMMERCIAL REFRIG. AIR COND. MFRS.	0	0	0	0	0	0	0	0
318	OFFICE AND STORE MACHINERY MFRS.	0	0	0	3	0	8	0	11
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	0	0	0	0	249	0	0	249
323	MOTOR VEHICLE MANUFACTURERS	0	0	0	0	0	0	0	0
324	TRUCK BODY AND TRAILER MFRS.	0	68	0	14	91	0	0	174
325	MOTOR VEHICLE PARTS AND ACCESSORIES	12	26	0	9	0	87	38	173
326	RAILROAD ROLLING STOCK INDUSTRY	0	0	0	125	0	58	200	383
327	SHIPBUILDING AND REPAIR	0	0	0	0	66	0	0	66
328	BOATBUILDING AND REPAIR	-	-	-	-	-	-	-	0
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-	-	-	-	-	-	-	0
331	MFRS OF SMALL ELECTRICAL APPLIANCES	0	0	0	6	0	0	0	6
332	MANUFACTURERS OF MAJOR APPLIANCES	0	0	0	0	0	1	0	1
333	MANUFACTURERS OF LIGHTING FIXTURES	0	0	0	0	0	0	0	0
334	MFRS. OF HOUSEHOLD RADIO AND TV	0	0	0	0	0	0	0	0
335	COMMUNICATIONS EQUIPTMENT MFRS.	0	0	0	0	0	20	38	58
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	6	0	0	0	0	16	0	22
338	MFRS OF ELECTRIC WIRE AND CABLE	0	0	0	0	0	0	0	0
339	MFRS OF MISC. ELECTRICAL PRODUCTS	0	0	0	0	0	2	0	2

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SIC	INDUSTRY NAME	ALGOMA	COCHRANE	MANATOULIN	NIPPISING	PARRY SOUND	SUDBURY	TIMISKAMING	TOTAL
351	CLAY PRODUCTS MANUFACTURERS	4	0	0	0	0	11	0	15
352	CEMENT MANUFACTURERS	12	4	0	7	0	86	5	113
353	STONE PRODUCTS MANUFACTURERS	0	0	0	0	0	4	0	4
354	CONCRETE PRODUCTS MANUFACTURERS	-	-	-	-	-	-	-	0
355	READY-MIX CONCRETE MANUFACTURERS	-	-	-	-	-	-	-	0
356	GLASS AND GLASS PRODUCTS MFRS.	0	27	0	160	0	13	0	200
357	ABRASIVES MANUFACTURERS	0	0	0	3	0	0	0	3
358	LIME MANUFACTURERS	0	0	0	0	0	0	2	2
359	MISC. NON-METALLIC MINERAL PRODS.	0	0	0	0	0	0	2	2
365	PETROLEUM REFINERIES	0	0	0	0	0	0	0	0
369	MISC. PETROLEUM & COAL PRODS. INDS.	1	0	0	0	0	0	0	1
372	MANUFACTURERS OF MIXED FERTILIZERS	0	0	0	0	0	1	0	1
373	MFRS OF PLASTICS & SYNTHETIC RESINS	0	0	0	13	0	25	0	37
374	MFRS PHARMACEUTICALS AND MEDICINES	0	0	0	0	0	25	0	25
375	PAINT AND VARNISH MANUFACTURERS	0	0	0	0	0	15	0	15
376	MFRS OF SOAP AND CLEANING COMPOUNDS	0	26	0	0	0	0	0	26
377	MFRS OF TOILET PREPARATIONS	0	40	0	0	0	0	0	40
378	MFRS OF INDUSTRIAL CHEMICALS	5	0	0	174	0	2,039	2	2,220
379	MISCELLANEOUS CHEMICAL INDUSTRIES	0	12	0	0	0	72	3	87
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	38	0	0	3	10	45	32	127
392	JEWELLERY AND SILVERWARE INDUSTRY	0	0	0	0	0	0	0	0
393	SPORTING GOODS AND TOY INDUSTRIES	38	0	0	3	110	0	0	150
397	SIGNS AND DISPLAYS INDUSTRY	7	16	0	0	0	3	0	25
399	MISC. MANUFACTURING IND. NES	35	5	0	14	0	38	12	105
	ALL INDUSTRIES	13,299	6,751	0	3,193	779	8,615	1,467	34,103
	MAJOR MFRG. COMMUNITIES	BTCHNNA BAY BLIND RIVER DUBREUILVLE ECHO BAY ELLIOT LAKE HORNEY PN SS MARIE SEARCHMONT THESSALON WHITE RIVER	CALSTOCK CHAPLEAU COCHRANE HEARST IROQUOIS F. KAPUSKASING OPASATIKA SCHUMACHER SMTH RCK F. S. PORCUPN TIMMINS		BURK'S F. FIELD GOLDEN V. HAGAR MADAWASKA MATTAWA NORTH BAY RUTHERGLEN STURGEON F. TEMAGAMI WHITNEY	MCKELLAR NOBEL PARRY SOUND POWASSAN SUNDRIDGE TROUT CREEK	ALBAN COPPERCLIFF DOWLING ESPANOLA FLCNBRIDGE HAMMER LIVELY NAIRN C. SUDBURY TEHKUMMA VAL CARON	BELLE V. COBALT EARLTON ENGLEHART HAILEYBURY KENOGAMI L. KIRKLAND L. NEW LISKRD TEMISKAMING THORNLOE	

TABLE 85
NORTHWESTERN ONTARIO
DISTRIBUTION OF MANUFACTURING EMPLOYMENT, 1985
(NUMBER OF EMPLOYEES)

SIC	INDUSTRY NAME	KENORA	RAINEY RIVER	THUNDER BAY	TOTAL
101	MEAT & POULTRY PRODUCTS	0	0	0	0
102	FISH PRODUCTS	-	-	-	-
103	FRUIT & VEGETABLE PROCESSING	19	0	16	35
104	DAIRY PRODUCTS	26	0	0	26
105	FLOUR & BREAKFAST CEREAL PRODUCTS	0	0	20	20
106	FEED	0	0	0	0
107	BAKERY PRODUCTS	0	0	155	155
108	MISC. FOODS	0	0	0	0
109	BEVERAGES	0	0	20	20
151	LEAF TOBACCO PROCESSORS	-	-	-	-
153	TOBACCO PRODUCTS	-	-	-	-
162	RUBBER PRODUCTS	0	0	0	0
165	PLASTIC FABRICATING (NES)	0	0	27	27
172	LEATHER TANNERIES	0	0	0	0
174	SHOES	0	0	0	0
175	LEATHER GLOVES	0	0	0	0
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	0	0	0	0
181	COTTON YARN & CLOTH	-	-	-	-
182	WOOL YARN & CLOTH	0	0	0	0
183	MAN-MADE FIBRE, YARN & CLOTH	0	0	0	0
184	CORDAGE & TWINE	0	0	0	0
185	FELT & FIBRE PROCESSING	0	0	0	0
186	CARPETS, MATS & RUGS	0	0	0	0
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	0	0	10	10
188	AUTO. FABRIC ACCESSORIES	-	-	-	-
189	MISC. TEXTILES	25	0	2	26
231	HOSIERY	0	0	0	0
239	KNITTING	0	0	0	0
243	MEN'S CLOTHING	0	0	0	0
244	WOMEN'S CLOTHING	0	0	0	0
245	CHILDREN'S CLOTHING	0	0	0	0
246	FUR GOODS	-	-	-	-
248	FOUNDATION GARMENTS	0	0	0	0
249	MISC. CLOTHING	0	0	0	0
251	SAWMILLS, PLANING AND SHINGLE MILLS	855	0	1,530	2,384
252	VENEER AND PLYWOOD MILLS	0	0	868	868
254	SASH, DOOR & OTHER MILLWORK PLANTS	0	0	286	286
256	WOODEN BOX FACTORIES	0	0	0	0
258	COFFIN AND CASKET INDUSTRY	0	0	0	0
259	MISCELLANEOUS WOOD INDUSTRIES	0	0	39	39

- CONTINUED

SIC	INDUSTRY NAME	KENORA	RAINEY RIVER	THUNDER BAY	TOTAL
261	HOUSEHOLD FURNITURE MANUFACTURERS	0	0	5	5
264	OFFICE FURNITURE MANUFACTURERS	0	0	0	0
266	MISC. FURNITURE AND FIXTURE MFRS.	-	-	-	-
268	ELECTRIC LAMP AND SHADE MFRS.	0	0	0	0
271	PULP AND PAPER MILLS	2,189	0	3,482	5,671
272	ASPHALT ROOFING MANUFACTURERS	-	-	-	-
273	PAPER BOX AND BAG MANUFACTURERS	0	0	0	0
274	MISCELLANEOUS PAPER CONVERTERS	0	0	17	17
286	COMMERCIAL PRINTING	300	0	106	406
287	PLATEMAKING, TYPESETTING ETC. IND.	0	0	0	0
288	PUBLISHING ONLY	207	0	57	264
289	PUBLISHING AND PRINTING	0	0	0	0
291	IRON AND STEEL MILLS	0	0	4	4
292	STEEL PIPE AND TUBE MILLS	0	0	0	0
294	IRON FOUNDRIES	-	-	-	-
295	SMELTING AND REFINING	231	0	0	231
296	ALUMINUM ROLLING, CASTING ETC.	0	0	4	4
297	COPPER AND COPPER ALLOY ROLLING ETC.	0	0	1	1
298	METAL ROLLING, CASTING ETC. NES	0	0	0	0
301	BOILER AND PLATE WORKS	0	0	0	0
302	FAB. STRUCTURAL METAL INDUSTRY	-	-	-	-
303	ORNAMENTAL & ARCHITECTURAL METAL	0	0	170	170
304	METAL STAMPING, PRESSING AND COATING	0	0	0	0
305	WIRE AND WIRE PRODUCTS MFRS.	0	0	0	0
306	HARDWARE, TOOL AND CUTLERY MFRS.	0	0	0	0
307	HEATING EQUIPTMENT MFRS.	0	0	0	0
308	MACHINE SHOPS	-	-	-	-
309	MISC. METAL FABRICATING INDS.	0	0	88	88
311	AGRICULTURAL IMPLEMENT INDUSTRY	0	0	25	25
315	MISC. MACHINERY & EQUIPTMENT MFRS.	0	0	309	309
316	COMMERCIAL REFRIG. AIR COND. MFRS.	0	0	0	0
318	OFFICE AND STORE MACHINERY MFRS.	0	0	0	0
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	0	0	0	0
323	MOTOR VEHICLE MANUFACTURERS	0	0	0	0
324	TRUCK BODY AND TRAILER MFRS.	0	0	86	86
325	MOTOR VEHICLE PARTS AND ACCESSORIES	0	0	2	2
326	RAILROAD ROLLING STOCK INDUSTRY	0	0	233	233
327	SHIPBUILDING AND REPAIR	0	0	609	609
328	BOATBUILDING AND REPAIR	-	-	-	-
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-	-	-	-
331	MFRS OF SMALL ELECTRICAL APPLIANCES	0	0	5	5
332	MANUFACTURERS OF MAJOR APPLIANCES	10	0	0	10
333	MANUFACTURERS OF LIGHTING FIXTURES	0	0	0	0
334	MFRS OF HOUSEHOLD RADIO AND TV	0	0	0	0
335	COMMUNICATIONS EQUIPTMENT MFRS	0	0	12	12
336	MFRS ELECTRICAL INDUSTRIAL EQUIP	0	0	48	48
338	MFRS OF ELECTRIC WIRE AND CABLE	0	0	0	0
339	MFRS OF MISC. ELECTRICAL PRODUCTS	0	0	16	16

- CONTINUED

SIC INDUSTRY NAME	KENORA	RAINEY RIVER	THUNDER BAY	TOTAL
351 CLAY PRODUCTS MANUFACTURERS	0	0	13	13
352 CEMENT MANUFACTURERS	3	0	9	12
353 STONE PRODUCTS MANUFACTURERS	0	0	2	2
354 CONCRETE PRODUCTS MANUFACTURERS	-	-	-	-
355 READY-MIX CONCRETE MANUFACTURERS	-	-	-	-
356 GLASS AND GLASS PRODUCTS MFRS.	0	0	0	0
357 ABRASIVES MANUFACTURERS	0	0	0	0
358 LIME MANUFACTURERS	0	0	0	0
359 MISC. NON-METALLIC MINERAL PRODS.	0	0	0	0
365 PETROLEUM REFINERIES	0	0	0	0
369 MISC. PETROLEUM & COAL PRODS. INDS.	0	0	0	0
372 MANUFACTURERS OF MIXED FERTILIZERS	0	0	0	0
373 MFRS OF PLASTICS & SYNTHETIC RESINS	0	0	4	4
374 MFRS PHARMACEUTICALS AND MEDICINES	0	0	0	0
375 PAINT AND VARNISH MANUFACTURERS	0	0	0	0
376 MFRS OF SOAP AND CLEANING COMPOUNDS	0	0	3	3
377 MFRS OF TOILET PREPARATIONS	0	0	0	0
378 MFRS OF INDUSTRIAL CHEMICALS	0	0	14	14
379 MISCELLANEOUS CHEMICAL INDUSTRIES	0	0	44	44
391 SCIENTIFIC AND PROFFESSIONAL EQUIP.	0	0	8	8
392 JEWELLERY AND SILVERWARE INDUSTRY	0	0	19	19
393 SPORTING GOODS AND TOY INDUSTRIES	189	0	0	189
397 SIGNS AND DISPLAYS INDUSTRY	0	0	4	4
399 MISC. MANUFACTURING IND. NES	0	0	6	6
ALL INDUSTRIES	4,035	0	10,643	14,678
MAJOR MFRG. COMMUNITIES	BALMERTOWN DRYDEN HUDSON KEEWATIN KENORA VERMLN BAY	ATIKOKAN F. FRANCES RAINY RIVER	KAKABEKA F. LONGLAC NIPIGON RED ROCK THUNDER BAY UPSALA	

TABLE 86
SOUTHWESTERN ONTARIO
DISTRIBUTION OF MANUFACTURING EMPLOYMENT, 1985
(NUMBER OF EMPLOYEES)

SIC INDUSTRY NAME	BRUCE	ELGIN	ESSEX	GREY	HURON	KENT	LAMBTON	MIDDLESEX	OXFORD	PERTH	TOTAL S. WEST	ONTARIO ALL COUNTIES
101 MEAT & POULTRY PRODUCTS	983	0	50	391	5	105	24	150	81	332	2,122	14,921
102 FISH PRODUCTS	-	-	-	-	-	-	-	-	-	-	-	-
103 FRUIT & VEGETABLE PROCESSING	0	0	948	24	52	657	0	80	57	230	2,048	8,471
104 DAIRY PRODUCTS	162	68	105	33	23	0	0	65	47	257	759	8,406
105 FLOUR & BREAKFAST CEREAL PRODUCTS	3	0	287	43	15	81	0	111	0	0	541	2,951
106 FEED	0	0	88	162	98	63	0	24	48	144	626	3,782
107 BAKERY PRODUCTS	0	0	92	0	0	32	0	580	0	0	703	13,976
108 MISC. FOODS	31	14	737	0	17	465	0	320	32	318	1,934	15,331
109 BEVERAGES	0	0	900	0	24	217	19	3,674	0	0	4,834	12,941
151 LEAF TOBACCO PROCESSORS	-	-	-	-	-	-	-	-	-	-	-	-
153 TOBACCO PRODUCTS	-	-	-	-	-	-	-	-	-	-	-	-
162 RUBBER PRODUCTS	0	757	33	0	78	124	10	28	90	1,207	2,326	19,882
165 PLASTIC FABRICATING (NES)	34	40	238	5	354	508	1,488	1,132	162	734	4,696	23,518
172 LEATHER TANNERIES	0	0	0	0	0	0	0	0	0	0	0	1,229
174 SHOES	0	0	5	62	103	0	87	564	0	0	821	8,306
175 LEATHER GLOVES	0	0	0	0	77	0	0	0	0	0	77	946
179 LUGGAGE, HANDBAG & SMALL LEATH. GDS.	0	0	0	0	42	0	0	0	0	500	542	2,619
181 COTTON YARN & CLOTH	-	-	-	-	-	-	-	-	-	-	-	-
182 WOOL YARN & CLOTH	0	0	0	0	0	0	0	0	0	375	375	1,273
183 MAN-MADE FIBRE, YARN & CLOTH	0	0	0	0	0	0	0	0	101	271	372	8,451
184 CORDAGE & TWINE	0	0	0	0	0	2	0	0	0	0	2	372
185 FELT & FIBRE PROCESSING	0	0	0	0	0	0	0	0	19	0	19	865
186 CARPETS, MATS & RUGS	0	0	5	0	0	3	0	0	23	16	46	1,401
187 CANVAS PRODUCTS, COTTON & JUTE BAGS	0	0	0	0	0	0	27	20	0	0	47	1,302
188 AUTO. FABRIC ACCESSORIES	-	-	-	-	-	-	-	-	-	-	-	-
189 MISC. TEXTILES	0	2	16	2	6	3	0	161	5	3	198	2,047
231 HOSIERY	0	0	0	0	29	0	0	0	347	131	508	1,749
239 KNITTING	0	141	0	0	32	4	0	272	0	63	512	4,501
243 MEN'S CLOTHING	0	63	79	0	14	14	0	234	271	0	675	12,452
244 WOMEN'S CLOTHING	0	34	43	0	8	7	0	126	146	0	363	6,697
245 CHILDREN'S CLOTHING	0	4	5	0	1	1	0	15	17	0	42	773
246 FUR GOODS	-	-	-	-	-	-	-	-	-	-	0	-
248 FOUNDATION GARMENTS	0	0	0	0	0	0	0	0	0	0	0	1,247
249 MISC. CLOTHING	0	0	45	0	10	4	16	108	0	0	184	1,708
251 SAWMILLS, PLANING AND SHINGLE MILLS	9	0	0	103	14	3	4	1	6	20	159	6,636
252 VENEER AND PLYWOOD MILLS	0	0	0	54	0	0	0	0	0	0	54	2,193
254 SASH, DOOR & OTHER MILLWORK PLANTS	213	251	105	0	381	60	1	173	7	11	1,201	7,475
256 WOODEN BOX FACTORIES	200	115	142	18	12	29	40	33	136	86	812	2,287
258 COFFIN AND CASKET INDUSTRY	0	0	0	0	0	0	0	0	0	0	0	177
259 MISCELLANEOUS WOOD INDUSTRIES	233	105	8	49	45	8	0	45	19	4	517	2,664

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SIC INDUSTRY NAME	BRUCE	ELGIN	ESSEX	GREY	HURON	KENT	LAMBTON	MIDDLESEX	OXFORD	PERTH	TOTAL S. WEST	ONTARIO ALL COUNTIES
261 HOUSEHOLD FURNITURE MANUFACTURERS	816	125	120	366	27	33	14	194	7	342	2,044	13,538
264 OFFICE FURNITURE MANUFACTURERS	61	12	4	0	4	0	0	91	0	83	255	4,217
266 MISC. FURNITURE AND FIXTURE MFRS.	-	-	-	-	-	-	-	-	-	-	-	-
268 ELECTRIC LAMP AND SHADE MFRS	0	0	0	0	0	0	0	0	0	0	0	618
271 PULP AND PAPER MILLS	0	0	0	0	0	0	0	522	0	0	522	19,360
272 ASPHALT ROOFING MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-
273 PAPER BOX AND BAG MANUFACTURERS	0	170	193	23	0	209	0	373	217	166	1,352	11,820
274 MISCELLANEOUS PAPER CONVERTERS	0	0	13	0	35	0	6	420	14	79	568	9,793
286 COMMERCIAL PRINTING	0	60	134	1,003	0	147	26	701	154	0	2,225	30,139
287 PLATEMAKING, TYPESETTING ETC. IND.	0	0	47	0	0	0	0	3,630	0	0	3,676	5,839
288 PUBLISHING ONLY	0	97	0	761	0	109	6	61	17	0	1,050	7,467
289 PUBLISHING AND PRINTING	0	150	131	2,230	0	347	0	72	0	0	2,929	17,355
291 IRON AND STEEL MILLS	0	143	624	158	158	56	93	252	413	60	1,957	38,892
292 STEEL PIPE AND TUBE MILLS	0	3	4	0	0	4	27	11	25	0	74	2,770
294 IRON FOUNDRIES	-	-	-	-	-	-	-	-	-	-	-	-
295 SMELTING AND REFINING	0	0	0	0	0	0	0	18	0	18	36	6,863
296 ALUMINUM ROLLING, CASTING ETC	0	0	12	0	0	246	0	510	1	0	769	4,359
297 COPPER AND COPPER ALLOY ROLLING ETC.	0	24	1	53	0	45	0	327	0	0	450	1,794
298 METAL ROLLING, CASTING ETC. NES	0	0	5	0	0	13	0	1	0	4	24	2,617
301 BOILER AND PLATE WORKS	0	102	0	0	66	0	0	0	0	142	310	3,630
302 FAB. STRUCTURAL METAL INDUSTRY	-	-	-	-	-	-	-	-	-	-	-	-
303 ORNAMENTAL & ARCHITECTURAL METAL	0	33	120	4	172	64	86	153	7	28	668	5,326
304 METAL STAMPING, PRESSING AND COATING	163	0	3,135	0	21	523	0	132	69	707	4,751	14,343
305 WIRE AND WIRE PRODUCTS MFRS.	0	193	221	169	0	121	12	47	72	25	859	6,784
306 HARDWARE, TOOL AND CUTLERY MFRS.	99	74	524	245	1	647	146	68	79	18	1,902	11,364
307 HEATING EQUIPTMENT MFRS.	0	35	5	0	23	142	0	36	26	77	344	3,416
308 MACHINE SHOPS	-	-	-	-	-	-	-	-	-	-	-	-
309 MISC. METAL FABRICATING INDS.	0	208	28	0	79	23	39	916	172	139	1,605	10,315
311 AGRICULTURAL IMPLEMENT INDUSTRY	0	47	4	6	33	131	4	25	173	86	510	4,802
315 MISC. MACHINERY & EQUIPTMENT MFRS.	101	554	1,908	428	312	347	204	1,062	395	438	5,749	31,631
316 COMMERCIAL REFRIG. AIR COND. MFRS.	4	57	10	0	0	0	0	53	3	0	126	2,557
318 OFFICE AND STORE MACHINERY MFRS	0	17	30	33	21	42	0	274	7	0	423	7,730
321 AIRCFRAFT & AIRCRAFT PARTS MFRS.	0	0	107	0	0	0	0	0	121	0	228	13,539
323 MOTOR VEHICLE MANUFACTURERS	0	3,510	8,168	104	0	929	0	0	0	54	12,772	42,147
324 TRUCK BODY AND TRAILER MFRS.	14	0	94	159	192	15	0	293	205	101	1,072	3,805
325 MOTOR VEHICLE PARTS AND ACCESSORIES	0	1,006	11,241	448	214	2,955	236	963	1,186	1,470	19,719	59,534
326 RAILROAD ROLLING STOCK INDUSTRY	0	196	0	0	0	94	0	742	0	0	1,031	4,427
327 SHIPBUILDING AND REPAIR	0	0	65	0	0	0	6	308	33	0	411	2,808
328 BOATBUILDING AND REPAIR	-	-	-	-	-	-	-	-	-	-	-	-
329 MISCELLANEOUS VEHICLE MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-
331 MFRS OF SMALL ELECTRICAL APPLIANCES	5	4	19	24	1	0	0	6	8	7	75	3,407
332 MANUFACTURERS OF MAJOR APPLIANCES	12	29	11	0	30	172	126	14	4	55	453	5,435
333 MANUFACTURERS OF LIGHTING FIXTURES	0	0	1	0	0	40	0	2	0	0	44	334
334 MFRS. OF HOUSEHOLD RADIO AND TV	0	28	3	0	0	0	0	0	0	0	30	2,844
335 COMMUNICATIONS EQUIPTMENT MFRS.	71	83	36	256	15	0	0	706	34	61	1,263	25,980
336 MFRS ELECTRICAL INDUSTRIAL EQUIP	18	55	162	34	140	5	12	768	302	220	1,715	16,496
338 MFRS OF ELECTRIC WIRE AND CABLE	0	233	0	0	0	0	0	5	0	113	351	5,040
339 MFRS OF MISC ELECTRICAL PRODUCTS	429	129	45	0	0	19	0	46	0	0	667	7,966

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SIC INDUSTRY NAME	BRUCE	ELGIN	ESSEX	GREY	HURON	KENT	LAMBTON	MIDDLESEX	OXFORD	PERTH	TOTAL S WEST	ONTARIO ALL COUNTIES
351 CLAY PRODUCTS MANUFACTURERS	0	20	76	10	0	8	5	12	3	0	135	1,569
352 CEMENT MANUFACTURERS	0	0	49	37	1	20	2	5	25	5	143	1,360
353 STONE PRODUCTS MANUFACTURERS	0	0	0	0	0	0	8	174	0	0	174	190
354 CONCRETE PRODUCTS MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-
355 READY-MIX CONCRETE MANUFACTURERS	-	-	-	-	-	-	-	-	-	-	-	-
356 GLASS AND GLASS PRODUCTS MFRS.	8	23	17	480	0	675	413	134	210	0	1,953	6,938
357 ABRASIVES MANUFACTURERS	0	0	138	0	0	0	0	577	84	45	844	1,783
358 LIME MANUFACTURERS	0	0	0	0	0	0	0	0	121	0	121	453
359 MISC. NON-METALLIC MINERAL PRODS.	0	0	0	0	0	0	141	0	90	0	231	4,238
365 PETROLEUM REFINERIES	0	0	4	0	0	0	793	0	3	0	800	12,162
369 MISC. PETROLEUM & COAL PRODS. INDS.	0	0	0	1	0	0	13	0	0	0	14	138
372 MANUFACTURERS OF MIXED FERTILIZERS	0	0	0	0	3	3	1	0	9	4	20	479
373 MFRS OF PLASTICS & SYNTHETIC RESINS	0	0	2	0	0	0	723	115	14	0	854	3,462
374 MFRS PHARMACEUTICALS AND MEDICINES	21	31	253	0	62	0	0	23	12	0	403	10,099
375 PAINT AND VARNISH MANUFACTURERS	0	0	63	5	0	0	1,430	28	5	179	1,710	3,969
376 MFRS OF SOAP AND CLEANING COMPOUNDS	0	0	27	0	0	0	1	435	4	0	468	6,429
377 MFRS OF TOILET PREPARATIONS	0	0	12	0	0	0	0	15	0	0	26	4,408
378 MFRS OF INDUSTRIAL CHEMICALS	5	0	246	0	64	21	2,432	114	6	41	2,930	15,035
379 MISCELLANEOUS CHEMICAL INDUSTRIES	0	45	37	0	31	53	597	478	8	44	1,293	11,109
391 SCIENTIFIC AND PROFFESSIONAL EQUIP.	0	30	208	162	0	165	5	361	80	64	1,074	10,518
392 JEWELLERY AND SILVERWARE INDUSTRY	0	510	23	0	103	8	0	57	99	0	890	6,114
393 SPORTING GOODS AND TOY INDUSTRIES	277	0	175	25	29	10	0	219	0	1,018	1,753	5,803
397 SIGNS AND DISPLAYS INDUSTRY	40	5	49	231	11	17	0	76	32	0	459	3,524
399 MISC. MANUFACTURING IND. NES	58	221	52	102	29	163	82	282	44	49	1,082	8,321
ALL INDUSTRIES	2,840	9,231	37,464	5,834	3,413	11,547	14,157	24,614	9,503	8,742	127,434	877,800
MAJOR MFRG. COMMUNITIES	CHESLEY FORMOSA KINCARDINE LUCKNOW PAISLEY PORT ELGIN RIPLEY TARA SOUTHHAMPTN TEESWATER WALKERTON WIARTON	AYLMER BELMONT P. STANLEY RODNEY ST THOMAS SOUTHWOLD SPARTA WEST LORNE	AMHERSTBURG BELLE RIVER COMBER COTTAM EMERYVILLE ESSEX HARROW KINGSVILLE LA SALLE LEAMINGTON MAIDSTONE NORTH RIDGE OLD CASTLE RUSCOM RUTHVEN STONEY P TECUMSEH WINDSOR	CLARKSBURG DUNDALK DURHAM FEVERSHAM HANOVER HEPWORTH MARKDALE MEAFORD NEUSTADT OWEN SOUND SHALLOW L. THORNBURY WILLMSFRD	BLYTH CENTRALIA CLINTON EXETER GODERICH GORRIE HENSALL HURON PARK KIPPEN SEAFORTH VANASTRA WINGHAM ZURICH	BLENHEIM BOTHWELL CHATHAM DRESDEN ERIEAU HIGHGATE MERLIN PAINCOURT RIDGETOWN THAMESVILLE TILBURY WALLACEBURG WHEATLEY	CORRUNA COURTRIGHT FLORENCE FOREST GRANS BEND INNERKIP MOORETOWN PETROLIA PT. EDWARD SARNIA SOMBRA THEDFORD WATFORD WYOMING	ARVA DELEWARE DORCHESTER GLENCOE HYDE PARK KILWORTH KOMOKA LAMBETH LONDON LUCAN MELBOURNE MOUNT BRDGS PARK HILL STRATHROY THORNDALE	BEACHVILLE BROWNSVILLE EMBRO HICKSON INGERSOLL NORWICH PLATTSVILLE TAVISTOCK TILLSONBURG VITTORIA WOODSTOCK	ATWOOD BRUNNER LISTOWEL MILLBANK MILVERTON MITCHELL ST MARYS SEBRINGVILLE STRATFORD		

TABLE B7
CENTRAL ONTARIO
PRINCIPAL CENTRES OF MANUFACTURING ACTIVITY

SIC	NAME OF INDUSTRY	REGIONAL EMPLOYMENT	INDUSTRY GROUPS	MAJOR CENTRES OF ACTIVITY			
325	MOTOR VEHICLE PARTS AND ACCESSORIES	38,326	AUTOMOTIVE	DURHAM	NIAGARA	HALTON	TORONTO
291	IRON AND STEEL MILLS	30,306	EXPORT	HAM-WENT.	NIAGARA	TORONTO	NORFOLK
323	MOTOR VEHICLE MANUFACTURERS	29,371	AUTOMOTIVE	DURHAM	HALTON	TORONTO	HAM-WENT.
286	COMMERCIAL PRINTING	24,250	IMPORT	TORONTO	PEEL	DURHAM	HAM-WENT.
315	MISC. MACHINERY & EQUIPTMENT MFRS.	21,354	MIXED	TORONTO	PEEL	WATERLOO	NIAGARA
335	COMMUNICATIONS EQUIPTMENT MFRS.	20,488	MIXED	TORONTO	SIMCOE	YORK	PEEL
165	PLASTIC FABRICATING (NES)	17,836	IMPORT	TORONTO	YORK	PEEL	WATERLOO
162	RUBBER PRODUCTS	16,234	IMPORT	TORONTO	HAM-WENT.	WATERLOO	BRANT
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	15,190	MIXED	TORONTO	SIMCOE	PEEL	WATERLOO
107	BAKERY PRODUCTS	12,490	IMPORT	TORONTO	WATERLOO	NORTHUMBERLA	HAM-WENT.
101	MEAT & POULTRY PRODUCTS	12,485	IMPORT	TORONTO	WATERLOO	HALTON	PEEL
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	12,177	IMPORT	TORONTO	YORK	PEEL	WATERLOO
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	11,966	MIXED- LOW IMPACT	TORONTO	PEEL	NIAGARA	WATERLOO
108	MISC. FOODS	11,873	MIXED	TORONTO	WATERLOO	HAM-WENT.	PEEL
289	PUBLISHING AND PRINTING	11,435	IMPORT	TORONTO	PEEL	NIAGARA	DURHAM
365	PETROLEUM REFINERIES	11,362	MIXED	TORONTO	NIAGARA	PEEL	BRANT
243	MEN'S CLOTHING	11,035	IMPORT	TORONTO	WATERLOO	HAM-WENT.	WELLINGTON
261	HOUSEHOLD FURNITURE MANUFACTURERS	10,166	IMPORT	TORONTO	WATERLOO	PEEL	YORK
273	PAPER BOX AND BAG MANUFACTURERS	9,766	IMPORT	TORONTO	PEEL	NORFOLK	BRANT
379	MISCELLANEOUS CHEMICAL INDUSTRIES	9,267	IMPORT	TORONTO	PEEL	NIAGARA	BRANT
	PRINCIPAL INDUSTRIES	337,377					
	ALL INDUSTRIES	632,456					
	PRINCIPAL EMPLOYMENT AS A PERCENTAGE OF TOTAL	53.3					

TABLE B8
EASTERN ONTARIO
PRINCIPAL CENTRES OF MANUFACTURING ACTIVITY

SIC	INDUSTRY NAME	REGIONAL EMPLOYMENT	INDUSTRY GROUPS	MAJOR CENTRES OF ACTIVITY			
183	MAN-MADE FIBRE, YARN & CLOTH	4,405	MIXED	FRONTENAC	ADDINGTON	PRESCOTT	GRENVILLE
335	COMMUNICATIONS EQUIPTMENT MFRS.	4,160	MIXED	HASTINGS	CARELTON	LEEDS	LANARK
271	PULP AND PAPER MILLS	3,850	IMPORT	RENFREW	HASTINGS	CARELTON	ADDINGTON
286	COMMERCIAL PRINTING	3,204	IMPORT	CARELTON	HASTINGS	STORMONT	GRENVILLE
315	MISC. MACHINERY & EQUIPTMENT MFRS.	3,138	MIXED	CARELTON	HASTINGS	STORMONT	LEEDS
174	SHOES	2,819	IMPORT	LANARK	HASTINGS	GLENGARRY	STORMONT
274	MISCELLANEOUS PAPER CONVERTERS	2,677	IMPORT	RENFREW	HASTINGS	CARELTON	GRENVILLE
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	2,534	IMPORT	CARELTON	HASTINGS	ADDINGTON	GRENVILLE
289	PUBLISHING AND PRINTING	2,335	IMPORT	FRONTENAC	CARELTON	STORMONT	LANARK
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	2,118	MIXED	CARELTON	LANARK	STORMONT	LEEDS
378	MFRS OF INDUSTRIAL CHEMICALS	1,819	MIXED	CARELTON	GRENVILLE	HASTINGS	LANARK
104	DAIRY PRODUCTS	1,790	IMPORT	DUNDAS	HASTINGS	FRONTENAC	ADDINGTON
108	MISC. FOODS	1,477	MIXED	DUNDAS	HASTINGS	FRONTENAC	LEEDS
325	MOTOR VEHICLE PARTS AND ACCESSORIES	1,314	AUTOMOTIVE	STORMONT	HASTINGS	LEEDS	FRONTENAC
374	MFRS PHARMACEUTICALS AND MEDICINES	1,173	IMPORT	CARELTON	LEEDS	STORMONT	HASTINGS
306	HARDWARE, TOOL AND CUTLERY MFRS.	1,152	IMPORT	HASTINGS	STORMONT	FRONTENAC	LANARK
291	IRON AND STEEL MILLS	1,141	EXPORT	PRESCOTT	HASTINGS	STORMONT	LEEDS
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	1,095	MIXED- LOW IMPACT	HASTINGS	CARELTON	FRONTENAC	LANARK
162	RUBBER PRODUCTS	1,036	IMPORT	STORMONT	HASTINGS	LANARK	CARELTON
356	GLASS AND GLASS PRODUCTS MFRS.	991	IMPORT	PRESCOTT	STORMONT	CARELTON	HASTINGS
	PRINCIPAL INDUSTRIES	44,228					
	ALL INDUSTRIES	69,129					
	PRINCIPAL EMPLOYMENT AS A PERCENTAGE OF TOTAL	64.0					

TABLE B9
NORTHEASTERN ONTARIO
PRINCIPAL CENTRES OF MANUFACTURING ACTIVITY

SIC	INDUSTRY NAME	REGIONAL EMPLOYMENT	INDUSTRY GROUPS	MAJOR CENTRES OF ACTIVITY			
291	IRON AND STEEL MILLS	5,484	EXPORT	ALGOMA	SUDBURY	TIMISKAMING	NIPPISING
271	PULP AND PAPER MILLS	4,716	IMPORT	COCHRANE	SUDBURY	ALGOMA	NIPPISING
251	SAWMILLS, PLANING AND SHINGLE MILLS	2,695	EXPORT	COCHRANE	ALGOMA	NIPPISING	SUDBURY
378	MFRS OF INDUSTRIAL CHEMICALS	2,220	MIXED	SUDBURY	NIPPISING	ALGOMA	TIMISKAMING
315	MISC. MACHINERY & EQUIPTMENT MFRS.	1,081	MIXED	NIPPISING	SUDBURY	TIMISKAMING	PARRY SOUND
292	STEEL PIPE AND TUBE MILLS	872	EXPORT	ALGOMA	SUDBURY	-	-
274	MISCELLANEOUS PAPER CONVERTERS	779	IMPORT	SUDBURY	-	-	-
289	PUBLISHING AND PRINTING	654	IMPORT	TIMISKAMING	-	-	-
183	MAN-MADE FIBRE, YARN & CLOTH	504	MIXED	NIPPISING	SUDBURY	-	-
254	SASH, DOOR & OTHER MILLWORK PLANTS	477	MIXED	ALGOMA	NIPPISING	PARRY SOUND	SUDBURY
252	VENEER AND PLYWOOD MILLS	476	IMPORT	COCHRANE	TIMISKAMING	ALGOMA	NIPPISING
109	BEVERAGES	449	IMPORT	ALGOMA	COCHRANE	SUDBURY	TIMISKAMING
326	RAILROAD ROLLING STOCK INDUSTRY	383	IMPORT	TIMISKAMING	NIPPISING	SUDBURY	-
261	HOUSEHOLD FURNITURE MANUFACTURERS	357	IMPORT	ALGOMA	TIMISKAMING	NIPPISING	SUDBURY
309	MISC. METAL FABRICATING INDS.	349	IMPORT	NIPPISING	PARRY SOUND	ALGOMA	SUDBURY
162	RUBBER PRODUCTS	285	IMPORT	SUDBURY	NIPPISING	ALGOMA	-
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	249	MIXED- LOW IMPACT	PARRY SOUND	COCHRANE	NIPPISING	SUDBURY
356	GLASS AND GLASS PRODUCTS MFRS.	200	IMPORT	NIPPISING	COCHRANE	SUDBURY	-
165	PLASTIC FABRICATING (NES)	189	IMPORT	SUDBURY	NIPPISING	TIMISKAMING	-
324	TRUCK BODY AND TRAILER MFRS.	174	IMPORT	PARRY SOUND	COCHRANE	NIPPISING	ALGOMA
	PRINCIPAL INDUSTRIES	22,590					
	ALL INDUSTRIES	34,103					
	PRINCIPAL EMPLOYMENT AS A PERCENTAGE OF TOTAL	66.2					

TABLE B10
NORTHWESTERN ONTARIO
PRINCIPAL CENTRES OF MANUFACTURING ACTIVITY

SIC	INDUSTRY NAME	REGIONAL EMPLOYMENT	INDUSTRY GROUPS	MAJOR CENTRES OF ACTIVITY	
271	PULP AND PAPER MILLS	5,671	IMPORT	THUNDER BAY	KENORA
251	SAWMILLS, PLANING AND SHINGLE MILLS	2,384	EXPORT	THUNDER BAY	KENORA
252	VENEER AND PLYWOOD MILLS	868	IMPORT	THUNDER BAY	-
327	SHIPBUILDING AND REPAIR	609	IMPORT	THUNDER BAY	-
286	COMMERCIAL PRINTING	406	IMPORT	KENORA	THUNDER BAY
315	MISC. MACHINERY & EQUIPTMENT MFRS.	309	MIXED	THUNDER BAY	-
254	SASH, DOOR & OTHER MILLWORK PLANTS	286	MIXED	THUNDER BAY	-
288	PUBLISHING ONLY	264	IMPORT	KENORA	THUNDER BAY
326	RAILROAD ROLLING STOCK INDUSTRY	233	IMPORT	THUNDER BAY	-
295	SMELTING AND REFINING	231	MIXED	KENORA	-
393	SPORTING GOODS AND TOY INDUSTRIES	189	IMPORT	KENORA	-
303	ORNAMENTAL & ARCHITECTURAL METAL	170	IMPORT	THUNDER BAY	-
107	BAKERY PRODUCTS	155	IMPORT	THUNDER BAY	-
309	MISC. METAL FABRICATING INDS.	88	IMPORT	THUNDER BAY	-
324	TRUCK BODY AND TRAILER MFRS.	86	IMPORT	THUNDER BAY	-
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	48	IMPORT	THUNDER BAY	-
379	MISCELLANEOUS CHEMICAL INDUSTRIES	44	IMPORT	THUNDER BAY	-
259	MISCELLANEOUS WOOD INDUSTRIES	39	MIXED	THUNDER BAY	-
103	FRUIT & VEGETABLE PROCESSING	35	IMPORT	KENORA	-
165	PLASTIC FABRICATING (NES)	27	IMPORT	THUNDER BAY	-
	PRINCIPAL INDUSTRIES	12,142			
	ALL INDUSTRIES	14,678			
	PRINCIPAL EMPLOYMENT AS A PERCENTAGE OF TOTAL	82.7			

TABLE B11
SOUTHWESTERN ONTARIO

SIC	INDUSTRY NAME	REGIONAL EMPLOYMENT	INDUSTRY GROUPS	MAJOR CENTRES OF ACTIVITY			
325	MOTOR VEHICLE PARTS AND ACCESSORIES	19,719	AUTOMOTIVE	ESSEX	KENT	PERTH	OXFORD
323	MOTOR VEHICLE MANUFACTURERS	12,772	AUTOMOTIVE	ESSEX	ELGIN	KENT	GREY
315	MISC. MACHINERY & EQUIPTMENT MFRS.	5,749	MIXED	ESSEX	MIDDLESEX	ELGIN	PERTH
109	BEVERAGES	4,834	IMPORT	MIDDLESEX	ESSEX	KENT	HURON
304	METAL STAMPING, PRESSING AND COATING	4,751	IMPORT	ESSEX	PERTH	KENT	BRUCE
165	PLASTIC FABRICATING (NES)	4,696	IMPORT	LAMBTON	MIDDLESEX	PERTH	KENT
287	PLATEMAKING, TYPESETTING ETC. IND.	3,676	IMPORT	MIDDLESEX	ESSEX		
378	MFRS OF INDUSTRIAL CHEMICALS	2,930	MIXED	LAMBTON	ESSEX	MIDDLESEX	HURON
289	PUBLISHING AND PRINTING	2,929	IMPORT	GREY	KENT	ELGIN	ESSEX
162	RUBBER PRODUCTS	2,326	IMPORT	PERTH	ELGIN	KENT	OXFORD
286	COMMERCIAL PRINTING	2,225	IMPORT	GREY	MIDDLESEX	OXFORD	KENT
101	MEAT & POULTRY PRODUCTS	2,122	IMPORT	BRUCE	GREY	PERTH	MIDDLESEX
103	FRUIT & VEGETABLE PROCESSING	2,048	IMPORT	ESSEX	KENT	PERTH	MIDDLESEX
261	HOUSEHOLD FURNITURE MANUFACTURERS	2,044	IMPORT	BRUCE	GREY	PERTH	MIDDLESEX
291	IRON AND STEEL MILLS	1,957	EXPORT	ESSEX	OXFORD	MIDDLESEX	HURON
356	GLASS AND GLASS PRODUCTS MFRS.	1,953	IMPORT	KENT	GREY	LAMBTON	OXFORD
108	MISC. FOODS	1,934	MIXED	ESSEX	KENT	MIDDLESEX	PERTH
306	HARDWARE, TOOL AND CUTLERY MFRS.	1,902	IMPORT	KENT	ESSEX	GREY	LAMBTON
393	SPORTING GOODS AND TOY INDUSTRIES	1,753	IMPORT	PERTH	BRUCE	MIDDLESEX	ESSEX
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	1,715	IMPORT	MIDDLESEX	OXFORD	PERTH	ESSEX
	PRINCIPAL INDUSTRIES	84,035					
	ALL INDUSTRIES	127,434					
	PRINCIPAL EMPLOYMENT AS A PERCENTAGE OF TOTAL	65.9					

APPENDIX C

THE STRUCTURE OF ONTARIO MANUFACTURING

APPENDIX C

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TABLE C1
ONTARIO ECONOMY
INDUSTRY SHARES OF OUTPUT AND EMPLOYMENT, 1985

INDUSTRIES	PERCENT SHARE OF REAL DOMESTIC PRODUCT 1985	PERCENT SHARE OF EMPLOYMENT * 1985
AGRICULTURE	(2.0)	(2.9)
OTHER PRIMARY	(1.2)	(1.2)
MANUFACTURING	(29.3)	(22.9)
CONSTRUCTION	(4.1)	(5.2)
TRANSPORTATION, COMMUNICATIONS & OTHER UTILITIES	(10.5)	(7.0)
TRADE	(13.1)	(17.3)
FINANCE, INSURANCE & REAL ESTATE	(13.4)	(5.8)
SERVICE	(20.4)	(31.1)
PUBLIC ADMINISTRATION	(5.9)	(6.6)
ALL INDUSTRIES	(100.0)	(100.0)

TABLE C2
ONTARIO MANUFACTURING
BASIC INDUSTRY AND TRADE DATA

SIC CODE	NAME OF INDUSTRY	INDUSTRY DATA			TRADE DATA		
		NUMBER OF ESTABLISHMENTS	EMPLOYMENT	SHIPMENTS	EXPORTS TO THE U.S.	IMPORTS FROM THE U.S.	TRADE BALANCE WITH THE U.S.
		1982 *	1985e	1985e	1985	1985	1985
		(#)	(#)	($000)	($000)	($000)	($000)
101	MEAT & POULTRY PRODUCTS	210	14,921	3,941,181	151,193	187,007	(35,814)
102	FISH PRODUCTS	13	6,120	-	35,839	36,452	(613)
103	FRUIT & VEGETABLE PROCESSING	102	8,471	1,402,999	37,214	156,357	(119,142)
104	DAIRY PRODUCTS	155	8,406	2,381,884	6,481	10,068	(3,586)
105	FLOUR & BREAKFAST CEREAL PRODUCTS	27	2,951	996,693	25,218	40,951	(15,733)
106	FEED	186	3,782	1,032,562	24,680	34,188	(9,509)
107	BAKERY PRODUCTS	495	13,976	1,180,769	87,501	21,614	65,887
108	MISC. FOODS	189	15,331	-	257,611	377,763	(120,152)
109	BEVERAGES	99	12,941	2,488,165	339,109	16,523	322,586
151	LEAF TOBACCO PROCESSORS	6	-	-	31,357	3,151	28,206
153	TOBACCO PRODUCTS	5	-	-	4,523	-	-
162	RUBBER PRODUCTS	81	19,882	2,794,633	407,993	436,329	(28,335)
165	PLASTIC FABRICATING (NES)	454	23,518	2,573,795	231,040	365,775	(134,735)
172	LEATHER TANNERIES	14	1,229	202,440	26,517	15,318	11,200
174	SHOES	78	8,306	602,487	18,355	14,862	3,493
175	LEATHER GLOVES	7	946	21,635	99	226	(126)
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	73	2,619	159,813	13,728	13,153	575
181	COTTON YARN & CLOTH	5	-	-	2,981	45,009	(42,029)
182	WOOL YARN & CLOTH	9	1,273	85,700	2,739	8,813	(6,074)
183	MAN-MADE FIBRE, YARN & CLOTH	46	8,451	1,048,543	79,826	214,319	(134,493)
184	CORDAGE & TWINE	12	372	31,359	3,720	5,097	(1,378)
185	FELT & FIBRE PROCESSING	19	865	76,155	6,664	10,265	(3,602)
186	CARPETS, MATS & RUGS	14	1,401	-	12,157	30,642	(18,485)
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	81	1,302	97,404	1,259	1,029	231
188	AUTO. FABRIC ACCESSORIES	11	5,007	642,761	-	-	-
189	MISC. TEXTILES	218	2,047	664,845	30,826	139,610	(108,783)
231	HOSIERY	34	1,749	104,255	1,372	5,820	(4,448)
239	KNITTING	58	4,501	252,799	6,825	61,766	(54,941)
243	MEN'S CLOTHING	149	12,452	706,010	12,186	8,015	4,171
244	WOMEN'S CLOTHING	169	6,697	408,288	19,145	9,119	10,026
245	CHILDREN'S CLOTHING	26	773	75,437	2,135	3,547	(1,412)
246	FUR GOODS	75	600	55,441	26,113	601	25,512
248	FOUNDATION GARMENTS	10	1,247	59,896	50	637	(587)
249	MISC. CLOTHING	45	1,708	99,247	25,005	8,253	16,751
251	SAWMILLS, PLANING AND SHINGLE MILLS	221	6,636	685,689	865,936	130,426	735,510
252	VENEER AND PLYWOOD MILLS	21	2,193	151,692	58,724	22,831	35,893
254	SASH, DOOR & OTHER MILLWORK PLANTS	343	7,475	649,518	40,006	43,950	(3,944)
256	WOODEN BOX FACTORIES	102	2,287	179,258	2,795	6,357	(3,562)
258	COFFIN AND CASKET INDUSTRY	8	177	9,735	-	6,930	-
259	MISCELLANEOUS WOOD INDUSTRIES	99	2,664	251,419	143,384	23,801	119,583
261	HOUSEHOLD FURNITURE MANUFACTURERS	652	13,538	865,443	104,407	68,108	36,299
264	OFFICE FURNITURE MANUFACTURERS	83	4,217	480,121	221,638	21,932	199,705
266	MISC. FURNITURE AND FIXTURE MFRS.	222	7,130	618,184	134,761	44,458	90,303
268	ELECTRIC LAMP AND SHADE MFRS.	26	618	38,763	-	893	-
271	PULP AND PAPER MILLS	36	19,360	4,082,640	2,047,627	328,520	1,719,107

TABLE C2 (CONTINUED)

		INDUSTRY DATA			TRADE DATA		
SIC CODE	NAME OF INDUSTRY	NUMBER OF ESTABLISHMENTS	EMPLOYMENT	SHIPMENTS	EXPORTS TO THE U.S.	IMPORTS FROM THE U.S.	TRADE BALANCE WITH THE U.S.
		1982 *	1985e	1985e	1985	1985	1985
		(#)	(#)	($000)	($000)	($000)	($000)
272	ASPHALT ROOFING MANUFACTURERS	5	426	180,563	56,405	1,473	54,932
273	PAPER BOX AND BAG MANUFACTURERS	171	11,820	1,896,921	24,105	55,241	(31,135)
274	MISCELLANEOUS PAPER CONVERTERS	135	9,793	1,751,449	106,581	167,853	(61,272)
286	COMMERCIAL PRINTING	1175	30,139	2,402,889	77,798	191,551	(113,752)
287	PLATEMAKING, TYPESETTING ETC. IND.	278	5,839	349,794	794	19,563	(18,769)
288	PUBLISHING ONLY	354	7,467	855,841	59,261	466,512	(407,250)
289	PUBLISHING AND PRINTING	201	17,355	1,284,302	109,093	264,977	(155,884)
291	IRON AND STEEL MILLS	23	38,892	7,509,094	1,239,650	563,427	676,223
292	STEEL PIPE AND TUBE MILLS	17	2,770	617,357	290,025	72,453	217,572
294	IRON FOUNDRIES	61	5,864	623,114	99,136	88,961	10,175
295	SMELTING AND REFINING	12	6,863	695,807	552,486	231,677	320,809
296	ALUMINUM ROLLING, CASTING ETC.	39	4,359	872,649	210,204	458,841	(248,637)
297	COPPER AND COPPER ALLOY ROLLING ETC.	28	1,794	589,586	69,223	54,831	14,393
298	METAL ROLLING, CASTING ETC. NES	53	2,617	677,984	79,651	55,893	23,758
301	BOILER AND PLATE WORKS	54	3,630	666,451	23,597	26,454	(2,857)
302	FAB. STRUCTURAL METAL INDUSTRY	100	2,837	541,487	-	1,069	-
303	ORNAMENTAL & ARCHITECTURAL METAL	305	5,326	717,894	99,292	17,244	82,048
304	METAL STAMPING, PRESSING AND COATING	458	14,343	2,250,054	52,359	131,648	(79,290)
305	WIRE AND WIRE PRODUCTS MFRS.	185	6,784	1,207,757	216,790	325,755	(108,965)
306	HARDWARE, TOOL AND CUTLERY MFRS.	652	11,364	1,039,002	341,310	321,841	19,469
307	HEATING EQUIPMENT MFRS.	82	3,416	323,793	64,772	37,307	27,465
308	MACHINE SHOPS	527	4,384	325,112	-	-	-
309	MISC. METAL FABRICATING INDS.	340	10,315	1,420,421	336,781	481,613	(144,833)
311	AGRICULTURAL IMPLEMENT INDUSTRY	67	4,802	762,874	352,440	504,863	(152,423)
315	MISC. MACHINERY & EQUIPMENT MFRS.	717	31,631	4,801,995	1,696,197	3,426,325	(1,730,128)
316	COMMERCIAL REFRIG. AIR COND. MFRS.	29	2,557	342,755	75,844	221,930	(146,086)
318	OFFICE AND STORE MACHINERY MFRS.	62	7,730	1,825,300	1,261,356	3,175,665	(1,914,309)
321	AIRCRAFT & AIRCRAFT PARTS MFRS.	51	13,539	1,234,476	863,863	580,248	283,615
323	MOTOR VEHICLE MANUFACTURERS	10	42,147	39,477,649	19,754,073	9,630,184	10,123,889
324	TRUCK BODY AND TRAILER MFRS.	86	3,805	612,332	77,859	78,525	(666)
325	MOTOR VEHICLE PARTS AND ACCESSORIES	278	59,534	11,248,225	10,548,699	15,729,855	(5,181,156)
326	RAILROAD ROLLING STOCK INDUSTRY	8	4,427	1,015,434	32,508	137,424	(104,915)
327	SHIPBUILDING AND REPAIR	11	2,808	193,659	8,635	3,235	5,399
328	BOATBUILDING AND REPAIR	80	-	156,001	100,023	54,919	45,104
329	MISCELLANEOUS VEHICLE MANUFACTURERS	3	-	11,559	85,760	34,748	51,011
331	MFRS OF SMALL ELECTRICAL APPLIANCES	41	3,407	631,540	50,305	261,105	(210,799)
332	MANUFACTURERS OF MAJOR APPLIANCES	25	5,435	880,234	61,536	130,558	(69,022)
333	MANUFACTURERS OF LIGHTING FIXTURES	47	334	175,858	13,126	145,366	(132,240)
334	MFRS. OF HOUSEHOLD RADIO AND TV	10	2,844	654,861	191,575	282,698	(91,123)
335	COMMUNICATIONS EQUIPMENT MFRS.	263	25,980	2,716,893	891,821	1,241,143	(349,321)
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	151	16,496	2,374,212	245,908	477,532	(231,623)
338	MFRS OF ELECTRIC WIRE AND CABLE	25	5,040	781,378	77,990	86,533	(8,543)
339	MFRS OF MISC. ELECTRICAL PRODUCTS	94	7,966	1,490,130	162,402	429,260	(266,859)
351	CLAY PRODUCTS MANUFACTURERS	54	1,569	122,814	1,159	33,450	(32,291)
352	CEMENT MANUFACTURERS	7	1,360	248,185	90,451	10,861	79,590
353	STONE PRODUCTS MANUFACTURERS	27	190	13,974	4,408	4,383	26
354	CONCRETE PRODUCTS MANUFACTURERS	188	3,260	306,311	23,246	3,215	20,030
355	READY-MIX CONCRETE MANUFACTURERS	150	2,508	389,565	-	-	-
356	GLASS AND GLASS PRODUCTS MFRS.	67	6,938	876,188	45,240	230,967	(185,727)
357	ABRASIVES MANUFACTURERS	21	1,783	217,254	118,109	76,212	41,897
358	LIME MANUFACTURERS	6	453	94,606	5,904	1,199	4,705

TABLE C2 (CONTINUED)

		INDUSTRY DATA			TRADE DATA		
SIC CODE	NAME OF INDUSTRY	NUMBER OF ESTABLISHMENTS	EMPLOYMENT	SHIPMENTS	EXPORTS TO THE U.S.	IMPORTS FROM THE U.S.	TRADE BALANCE WITH THE U.S.
		1982 *	1985e	1985e	1985	1985	1985
		(#)	(#)	($000)	($000)	($000)	($000)
359	MISC. NON-METALLIC MINERAL PRODS.	52	4,238	547,358	89,085	179,686	(90,601)
365	PETROLEUM REFINERIES	21	12,162	10,924,297	684,378	282,281	402,098
369	MISC. PETROLEUM & COAL PRODS. INDS.	21	138	35,535	190,155	69,260	120,894
372	MANUFACTURERS OF MIXED FERTILIZERS	52	479	200,003	19,692	14,677	5,015
373	MFRS OF PLASTICS & SYNTHETIC RESINS	37	3,462	1,255,351	395,976	852,722	(456,746)
374	MFRS PHARMACEUTICALS AND MEDICINES	66	10,099	1,201,795	28,616	162,233	(133,618)
375	PAINT AND VARNISH MANUFACTURERS	74	3,949	756,909	14,405	131,424	(117,019)
376	MFRS OF SOAP AND CLEANING COMPOUNDS	60	6,429	1,367,146	42,513	2,105	40,408
377	MFRS OF TOILET PREPARATIONS	39	4,468	522,107	24,937	66,505	(41,568)
378	MFRS OF INDUSTRIAL CHEMICALS	64	15,005	6,064,170	1,137,607	1,072,993	64,614
379	MISCELLANEOUS CHEMICAL INDUSTRIES	213	11,109	2,149,179	109,995	793,750	(683,755)
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	460	18,518	1,493,146	665,191	1,423,547	(758,356)
392	JEWELLERY AND SILVERWARE INDUSTRY	178	6,134	704,115	78,320	75,159	3,161
393	SPORTING GOODS AND TOY INDUSTRIES	117	5,803	707,898	24,290	144,220	(119,929)
397	SIGNS AND DISPLAYS INDUSTRY	218	3,524	202,743	22,699	14,940	7,758
399	MISC. MANUFACTURING IND. NES	329	8,321	620,043	144,075	545,813	(401,738)
	TOTAL ALL INDUSTRIES	14,822	877,800	156,489,806	50,172,423	49,840,390	332,033

* MOST RECENT AVAILABLE DATA
e ESTIMATED

TABLE C3
ONTARIO MANUFACTURING
OUTPUT AND EMPLOYMENT
(RANKED BY 1985 RDP)

SIC CODE	NAME OF INDUSTRY	REAL DOMESTIC PRODUCT ($1971 MILLIONS) 1985 e	AVERAGE ANNUAL PERCENT CHANGE IN RDP 1980-1985	EMPLOYMENT (#) 1985e	ABSOLUTE CHANGE IN EMPLOYMENT 1980-85
323	MOTOR VEHICLE MANUFACTURERS	1,731 (11.2)	7.5	42,147 (4.8)	6,334
325	MOTOR VEHICLE PARTS AND ACCESSORIES	1,103 (7.1)	11.2	59,534 (6.8)	15,601
291	IRON AND STEEL MILLS	776 (5.0)	-0.9	38,892 (4.4)	(7,987)
315	MISC. MACHINERY & EQUIPMENT MFRS.	553 (3.6)	-3.6	31,631 (3.6)	(11,086)
335	COMMUNICATIONS EQUIPMENT MFRS.	473 (3.0)	7.0	25,980 (3.0)	(640)
286	COMMERCIAL PRINTING	415 (2.7)	5.1	30,139 (3.4)	3,804
109	BEVERAGES	401 (2.6)	0.7	12,941 (1.5)	692
165	PLASTIC FABRICATING (NES)	394 (2.5)	6.2	23,518 (2.7)	2,982
271	PULP AND PAPER MILLS	376 (2.4)	3.1	19,360 (2.2)	(3,745)
318	OFFICE AND STORE MACHINERY MFRS.	343 (2.2)	7.9	7,730 (0.9)	55
	TOP 10 INDUSTRIES TOTAL	6,566 (42.3)	4.7	291,872 (33.3)	6,010
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	328 (2.1)	2.6	16,496 (1.9)	(5,154)
289	PUBLISHING AND PRINTING	325 (2.1)	1.2	17,355 (2.0)	(265)
304	METAL STAMPING, PRESSING AND COATING	285 (1.8)	2.6	14,343 (1.6)	(5,100)
378	MFRS OF INDUSTRIAL CHEMICALS	268 (1.7)	1.1	15,005 (1.7)	(413)
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	238 (1.5)	-2.6	18,518 (2.1)	1,158
399	MISC. MANUFACTURING IND. NES	235 (1.5)	-1.4	8,321 (0.9)	(585)
379	MISCELLANEOUS CHEMICAL INDUSTRIES	233 (1.5)	4.2	11,109 (1.3)	2,445
374	MFRS PHARMACEUTICALS AND MEDICINES	228 (1.5)	5.4	10,099 (1.2)	2,051
309	MISC. METAL FABRICATING INDS.	218 (1.4)	0.7	10,315 (1.2)	(5,755)
101	MEAT & POULTRY PRODUCTS	213 (1.4)	0.4	14,921 (1.7)	(2,043)
376	MFRS OF SOAP AND CLEANING COMPOUNDS	199 (1.3)	4.8	6,429 (0.7)	279
273	PAPER BOX AND BAG MANUFACTURERS	192 (1.2)	3.7	11,820 (1.3)	(1,531)
306	HARDWARE, TOOL AND CUTLERY MFRS.	187 (1.2)	-0.9	11,364 (1.3)	(3,384)
321	AIRCRAFT & AIRCRAFT PARTS MFRS.	171 (1.1)	1.9	13,539 (1.5)	(3,504)
274	MISCELLANEOUS PAPER CONVERTERS	165 (1.1)	3.4	9,793 (1.1)	(1,185)
	TOP 25 INDUSTRIES TOTAL	10,052 (64.7)	3.5	481,299 (54.8)	(16,976)
339	MFRS OF MISC. ELECTRICAL PRODUCTS	153 (1.0)	4.0	7,966 (0.9)	(2,993)
356	GLASS AND GLASS PRODUCTS MFRS.	152 (1.0)	0.3	6,938 (0.8)	(1,150)
305	WIRE AND WIRE PRODUCTS MFRS.	149 (1.0)	1.6	6,784 (0.8)	(4,143)
288	PUBLISHING ONLY	133 (0.9)	5.7	7,467 (0.9)	1,588
334	MFRS. OF HOUSEHOLD RADIO AND TV	130 (0.8)	6.0	2,844 (0.3)	213
261	HOUSEHOLD FURNITURE MANUFACTURERS	129 (0.8)	1.2	13,538 (1.5)	(620)
104	DAIRY PRODUCTS	121 (0.8)	-0.7	8,406 (1.0)	(335)
303	ORNAMENTAL & ARCHITECTURAL METAL	120 (0.8)	0.3	5,326 (0.6)	(2,789)
295	SMELTING AND REFINING	117 (0.8)	4.2	6,863 (0.8)	(2,493)
373	MFRS OF PLASTICS & SYNTHETIC RESINS	115 (0.7)	3.8	3,462 (0.4)	241
332	MANUFACTURERS OF MAJOR APPLIANCES	113 (0.7)	-4.7	5,435 (0.6)	(3,505)
331	MFRS OF SMALL ELECTRICAL APPLIANCES	110 (0.7)	3.6	3,407 (0.4)	(951)
103	FRUIT & VEGETABLE PROCESSING	110 (0.7)	-0.2	8,471 (1.0)	(770)
251	SAWMILLS, PLANING AND SHINGLE MILLS	103 (0.7)	7.9	6,636 (0.8)	(331)
254	SASH, DOOR & OTHER MILLWORK PLANTS	96 (0.6)	8.5	[illegible]	[illegible]

TABLE C3 - CONTINUED

SIC CODE	NAME OF INDUSTRY	REAL DOMESTIC PRODUCT ($1971 MILLIONS) 1985 e		AVERAGE ANNUAL PERCENT CHANGE IN RDP 1980-1985	EMPLOYMENT (#) 1985e		ABSOLUTE CHANGE IN EMPLOYMENT 1980-85
377	MFRS OF TOILET PREPARATIONS	93	(0.6)	7.1	4,468	(0.5)	815
107	BAKERY PRODUCTS	92	(0.6)	-0.1	13,976	(1.6)	1,560
365	PETROLEUM REFINERIES	91	(0.6)	-1.0	12,162	(1.4)	1,126
301	BOILER AND PLATE WORKS	90	(0.6)	8.4	3,630	(0.4)	(2,538)
302	FAB. STRUCTURAL METAL INDUSTRY	88	(0.6)	-0.8	2,837	(0.3)	(2,838)
243	MEN'S CLOTHING	87	(0.6)	-3.2	12,452	(1.4)	(829)
287	PLATEMAKING, TYPESETTING ETC. IND.	87	(0.6)	5.6	5,839	(0.7)	1,087
264	OFFICE FURNITURE MANUFACTURERS	85	(0.6)	10.0	4,217	(0.5)	(159)
294	IRON FOUNDRIES	85	(0.5)	3.1	5,864	(0.7)	(527)
266	MISC. FURNITURE AND FIXTURE MFRS.	85	(0.5)	7.4	7,130	(0.8)	862
308	MACHINE SHOPS	84	(0.5)	4.5	4,384	(0.5)	(1,132)
188	AUTO. FABRIC ACCESSORIES	82	(0.5)	1.8	5,007	(0.6)	(581)
359	MISC. NON-METALLIC MINERAL PRODS.	78	(0.5)	-	4,238	(0.5)	(1,165)
326	RAILROAD ROLLING STOCK INDUSTRY	78	(0.5)	-0.8	4,427	(0.5)	(1,757)
375	PAINT AND VARNISH MANUFACTURERS	76	(0.5)	1.6	3,949	(0.4)	42
338	MFRS OF ELECTRIC WIRE AND CABLE	73	(0.5)	-1.6	5,040	(0.6)	34
296	ALUMINUM ROLLING, CASTING ETC.	68	(0.4)	1.6	4,359	(0.5)	(156)
311	AGRICULTURAL IMPLEMENT INDUSTRY	65	(0.4)	-10.4	4,802	(0.5)	(5,126)
174	SHOES	64	(0.4)	1.6	8,306	(0.9)	(380)
106	FEED	64	(0.4)	1.1	3,782	(0.4)	331
324	TRUCK BODY AND TRAILER MFRS.	59	(0.4)	-0.4	3,805	(0.4)	(1,484)
105	FLOUR & BREAKFAST CEREAL PRODUCTS	54	(0.3)	4.9	2,951	(0.3)	(229)
354	CONCRETE PRODUCTS MANUFACTURERS	52	(0.3)	1.7	3,260	(0.4)	(395)
316	COMMERCIAL REFRIG. AIR COND. MFRS.	51	(0.3)	-2.1	2,557	(0.3)	(886)
239	KNITTING	47	(0.3)	-	4,501	(0.5)	(890)
259	MISCELLANEOUS WOOD INDUSTRIES	45	(0.3)	7.2	2,664	(0.3)	(171)
292	STEEL PIPE AND TUBE MILLS	43	(0.3)	0.8	2,770	(0.3)	(465)
327	SHIPBUILDING AND REPAIR	41	(0.3)	8.8	2,808	(0.3)	403
307	HEATING EQUIPMENT MFRS.	39	(0.3)	-1.7	3,416	(0.4)	(238)
352	CEMENT MANUFACTURERS	36	(0.2)	-2.1	1,360	(0.2)	(60)
355	READY-MIX CONCRETE MANUFACTURERS	32	(0.2)	-0.4	2,508	(0.3)	(42)
256	WOODEN BOX FACTORIES	31	(0.2)	6.8	2,287	(0.3)	37
252	VENEER AND PLYWOOD MILLS	27	(0.2)	4.2	2,193	(0.2)	(250)
231	HOSIERY	25	(0.2)	1.9	1,749	(0.2)	(271)
351	CLAY PRODUCTS MANUFACTURERS	23	(0.1)	-6.7	1,569	(0.2)	(1,063)
357	ABRASIVES MANUFACTURERS	22	(0.1)	-1.2	1,783	(0.2)	(370)
179	LUGGAGE, HANDBAG & SMALL LEATH.GDS.	20	(0.1)	-0.1	2,619	(0.3)	(37)
333	MANUFACTURERS OF LIGHTING FIXTURES	18	(0.1)	0.2	334	(0.0)	(1,308)
172	LEATHER TANNERIES	15	(0.1)	-1.4	1,229	(0.1)	(393)
182	WOOL YARN & CLOTH	14	(0.1)	-2.2	1,273	(0.1)	(211)
272	ASPHALT ROOFING MANUFACTURERS	11	(0.1)	1.3	426	(0.0)	(1)
372	MANUFACTURERS OF MIXED FERTILIZERS	10	(0.1)	-2.7	479	(0.1)	(114)
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	7	(0.0)	-0.3	1,302	(0.1)	(146)
268	ELECTRIC LAMP AND SHADE MFRS.	5	(0.0)	7.2	618	(0.1)	(18)
358	LIME MANUFACTURERS	4	(0.0)	-2.7	453	(0.1)	(85)
184	CORDAGE & TWINE	4	(0.0)	0.6	372	(0.0)	(95)
353	STONE PRODUCTS MANUFACTURERS	3	(0.0)	5.5	190	(0.0)	(3)

TABLE C3 - CONTINUED

SIC CODE	NAME OF INDUSTRY	REAL DOMESTIC PRODUCT ($1971 MILLIONS) 1985 e		AVERAGE ANNUAL PERCENT CHANGE IN RDP 1980-1985	EMPLOYMENT (#) 1985e		ABSOLUTE CHANGE IN EMPLOYMENT 1980-85
369	MISC. PETROLEUM & COAL PRODS. INDS.	2	(0.0)	6.2	138	(0.0)	15
258	COFFIN AND CASKET INDUSTRY	2	(0.0)	5.3	177	(0.0)	(8)
175	LEATHER GLOVES	2	(0.0)	2.1	946	(0.1)	646
181	COTTON YARN & CLOTH	-	-	-	-	-	0
108	MISC. FOODS	-	-	-	15,331	(1.7)	15,331
297	COPPER AND COPPER ALLOY ROLLING ETC.	-	-	-	1,794	(0.2)	1,794
162	RUBBER PRODUCTS	-	-	-	19,882	(2.3)	1,476
189	MISC. TEXTILES	-	-	-	2,047	(0.2)	(5,485)
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-	-	-	-	-	0
244	WOMEN'S CLOTHING	-	-	-	6,697	(0.8)	6,697
249	MISC. CLOTHING	-	-	-	1,708	(0.2)	(67)
245	CHILDREN'S CLOTHING	-	-	-	773	(0.1)	773
185	FELT & FIBRE PROCESSING	-	-	-	865	(0.1)	(37)
246	FUR GOODS	-	-	-	600	(0.1)	61
298	METAL ROLLING, CASTING ETC. NES	-	-	-	2,617	(0.3)	2,617
248	FOUNDATION GARMENTS	-	-	-	1,247	(0.1)	158
151	LEAF TOBACCO PROCESSORS	-	-	-	-	-	0
392	JEWELLERY AND SILVERWARE INDUSTRY	-	-	-	6,134	(0.7)	1,498
183	MAN-MADE FIBRE, YARN & CLOTH	-	-	-	8,451	(1.0)	(542)
393	SPORTING GOODS AND TOY INDUSTRIES	-	-	-	5,803	(0.7)	(960)
153	TOBACCO PRODUCTS	-	-	-	-	-	0
186	CARPETS, MATS & RUGS	-	-	-	1,401	(0.2)	1,401
328	BOATBUILDING AND REPAIR	-	-	-	-	-	0
397	SIGNS AND DISPLAYS INDUSTRY	-	-	-	3,524	(0.4)	16
102	FISH PRODUCTS	-	-	-	6,120	(0.7)	6,120
	TOTAL ALL INDUSTRIES	15,527	(100.0)	2.8	877,800		(32,164)

e ESTIMATED

TABLE C4
ONTARIO MANUFACTURING INDUSTRY TRADE DATA
(RANKED BY TOTAL TRADE WITH THE U.S.)

SIC CODE	NAME OF INDUSTRY	TOTAL TRADE WITH THE U.S. 1985 ($000)		EXPORTS TO THE U.S. 1985 ($000)		IMPORTS FROM THE U.S. 1985 ($000)		TRADE BALANCE WITH THE U.S. 1985 ($000)
323	MOTOR VEHICLE MANUFACTURERS	29,384,257	(29.4)	19,754,073	(39.4)	9,630,184	(19.3)	10,123,889
325	MOTOR VEHICLE PARTS AND ACCESSORIES	26,278,555	(26.3)	10,548,699	(21.0)	15,729,855	(31.6)	(5,181,156)
315	MISC. MACHINERY & EQUIPTMENT MFRS.	5,122,522	(5.1)	1,696,197	(3.4)	3,426,325	(6.9)	(1,730,128)
318	OFFICE AND STORE MACHINERY MFRS.	4,437,020	(4.4)	1,261,356	(2.5)	3,175,665	(6.4)	(1,914,309)
271	PULP AND PAPER MILLS	2,376,147	(2.4)	2,047,627	(4.1)	328,520	(0.7)	1,719,107
378	MFRS OF INDUSTRIAL CHEMICALS	2,210,600	(2.2)	1,137,607	(2.3)	1,072,993	(2.2)	64,614
335	COMMUNICATIONS EQUIPTMENT MFRS.	2,132,964	(2.1)	891,821	(1.8)	1,241,143	(2.5)	(349,321)
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	2,088,738	(2.1)	665,191	(1.3)	1,423,547	(2.9)	(758,356)
291	IRON AND STEEL MILLS	1,803,078	(1.8)	1,239,650	(2.5)	563,427	(1.1)	676,223
321	AIRCRAFT & AIRCRAFT PARTS MFRS.	1,444,111	(1.4)	863,863	(1.7)	580,248	(1.2)	283,615
	TOP 10 INDUSTRIES	77,277,993	(77.3)	40,106,085	(79.9)	37,171,908	(74.6)	2,934,177
	TOTAL ALL INDUSTRIES	100,012,813		50,172,423		49,840,390		332,033
373	MFRS OF PLASTICS & SYNTHETIC RESINS	1,248,698	(1.2)	395,976	(0.8)	852,722	(1.7)	(456,746)
251	SAWMILLS, PLANING AND SHINGLE MILLS	996,362	(1.0)	865,936	(1.7)	130,426	(0.3)	735,510
365	PETROLEUM REFINERIES	966,659	(1.0)	684,378	(1.4)	282,281	(0.6)	402,098
379	MISCELLANEOUS CHEMICAL INDUSTRIES	903,745	(0.9)	109,995	(0.2)	793,750	(1.6)	(683,755)
311	AGRICULTURAL IMPLEMENT INDUSTRY	857,303	(0.9)	352,440	(0.7)	504,863	(1.0)	(152,423)
162	RUBBER PRODUCTS	844,322	(0.8)	407,993	(0.8)	436,329	(0.9)	(28,335)
309	MISC. METAL FABRICATING INDS.	818,394	(0.8)	336,781	(0.7)	481,613	(1.0)	(144,833)
295	SMELTING AND REFINING	784,163	(0.8)	552,486	(1.1)	231,677	(0.5)	320,809
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	723,440	(0.7)	245,908	(0.5)	477,532	(1.0)	(231,623)
399	MISC. MANUFACTURING IND. NES	689,887	(0.7)	144,075	(0.3)	545,813	(1.1)	(401,738)
296	ALUMINUM ROLLING, CASTING ETC.	669,045	(0.7)	210,204	(0.4)	458,841	(0.9)	(248,637)
306	HARDWARE, TOOL AND CUTLERY MFRS.	663,151	(0.7)	341,310	(0.7)	321,841	(0.6)	19,469
108	MISC. FOODS	635,374	(0.6)	257,611	(0.5)	377,763	(0.8)	(120,152)
165	PLASTIC FABRICATING (NES)	596,815	(0.6)	231,040	(0.5)	365,775	(0.7)	(134,735)
339	MFRS OF MISC. ELECTRICAL PRODUCTS	591,662	(0.6)	162,402	(0.3)	429,260	(0.9)	(266,859)
	TOP 25 INDUSTRIES	89,267,015	(89.3)	45,404,619	(90.5)	43,862,395	(88.0)	1,542,224
	TOTAL ALL INDUSTRIES	100,012,813		50,172,423		49,840,390		332,033
305	WIRE AND WIRE PRODUCTS MFRS.	542,545	(0.5)	216,790	(0.4)	325,755	(0.7)	(108,965)
288	PUBLISHING ONLY	525,773	(0.5)	59,261	(0.1)	466,512	(0.9)	(407,250)
334	MFRS. OF HOUSEHOLD RADIO AND TV	474,272	(0.5)	191,575	(0.4)	282,698	(0.6)	(91,123)
289	PUBLISHING AND PRINTING	374,070	(0.4)	109,093	(0.2)	264,977	(0.5)	(155,884)
292	STEEL PIPE AND TUBE MILLS	362,478	(0.4)	290,025	(0.6)	72,453	(0.1)	217,572
109	BEVERAGES	355,632	(0.4)	339,109	(0.7)	16,523	(0.0)	322,586
101	MEAT & POULTRY PRODUCTS	338,201	(0.3)	151,193	(0.3)	187,007	(0.4)	(35,814)
331	MFRS OF SMALL ELECTRICAL APPLIANCES	311,410	(0.3)	50,305	(0.1)	261,105	(0.5)	(210,799)

TABLE C4 - CONTINUED

SIC CODE	NAME OF INDUSTRY	TOTAL TRADE WITH THE U.S.		EXPORTS TO THE U.S.		IMPORTS FROM THE U.S.		TRADE BALANCE WITH THE U.S.
		1985		1985		1985		1985
		($000)		($000)		($000)		($000)
316	COMMERCIAL REFRIG. AIR COND. MFRS.	297,774	(0.3)	75,844	(0.2)	221,930	(0.4)	(146,086)
183	MAN-MADE FIBRE, YARN & CLOTH	294,144	(0.3)	79,826	(0.2)	214,319	(0.4)	(134,493)
356	GLASS AND GLASS PRODUCTS MFRS.	276,208	(0.3)	45,240	(0.1)	230,967	(0.5)	(185,727)
274	MISCELLANEOUS PAPER CONVERTERS	274,434	(0.3)	106,581	(0.2)	167,853	(0.3)	(61,272)
286	COMMERCIAL PRINTING	269,349	(0.3)	77,798	(0.2)	191,551	(0.4)	(113,752)
359	MISC. NON-METALLIC MINERAL PRODS.	268,771	(0.3)	89,085	(0.2)	179,686	(0.4)	(90,601)
369	MISC. PETROLEUM & COAL PRODS. INDS.	259,415	(0.3)	190,155	(0.4)	69,260	(0.1)	120,894
264	OFFICE FURNITURE MANUFACTURERS	243,570	(0.2)	221,638	(0.4)	21,932	(0.0)	199,705
357	ABRASIVES MANUFACTURERS	194,321	(0.2)	118,109	(0.2)	76,212	(0.2)	41,897
103	FRUIT & VEGETABLE PROCESSING	193,571	(0.2)	37,214	(0.1)	156,357	(0.3)	(119,142)
332	MANUFACTURERS OF MAJOR APPLIANCES	192,093	(0.2)	61,536	(0.1)	130,558	(0.3)	(69,022)
374	MFRS PHARMACEUTICALS AND MEDICINES	190,849	(0.2)	28,616	(0.1)	162,233	(0.3)	(133,618)
294	IRON FOUNDRIES	188,098	(0.2)	99,136	(0.2)	88,961	(0.2)	10,175
304	METAL STAMPING, PRESSING AND COATING	184,007	(0.2)	52,359	(0.1)	131,648	(0.3)	(79,290)
266	MISC. FURNITURE AND FIXTURE MFRS.	179,219	(0.2)	134,761	(0.3)	44,458	(0.1)	90,303
261	HOUSEHOLD FURNITURE MANUFACTURERS	172,515	(0.2)	104,407	(0.2)	68,108	(0.1)	36,299
189	MISC. TEXTILES	170,436	(0.2)	30,826	(0.1)	139,610	(0.3)	(108,783)
	TOP 50 INDUSTRIES	96,400,170	(96.4)	48,365,102	(96.4)	48,035,068	(96.4)	330,034
	TOTAL ALL INDUSTRIES	100,012,813		50,172,423		49,840,390		332,033
326	RAILROAD ROLLING STOCK INDUSTRY	169,932	(0.2)	32,508	(0.1)	137,424	(0.3)	(104,915)
393	SPORTING GOODS AND TOY INDUSTRIES	168,510	(0.2)	24,290	(0.0)	144,220	(0.3)	(119,929)
259	MISCELLANEOUS WOOD INDUSTRIES	167,185	(0.2)	143,384	(0.3)	23,801	(0.0)	119,583
338	MFRS OF ELECTRIC WIRE AND CABLE	164,523	(0.2)	77,990	(0.2)	86,533	(0.2)	(8,543)
333	MANUFACTURERS OF LIGHTING FIXTURES	158,492	(0.2)	13,126	(0.0)	145,366	(0.3)	(132,240)
324	TRUCK BODY AND TRAILER MFRS.	156,383	(0.2)	77,859	(0.2)	78,525	(0.2)	(666)
328	BOATBUILDING AND REPAIR	154,942	(0.2)	100,023	(0.2)	54,919	(0.1)	45,104
392	JEWELLERY AND SILVERWARE INDUSTRY	153,479	(0.2)	78,320	(0.2)	75,159	(0.2)	3,161
375	PAINT AND VARNISH MANUFACTURERS	145,828	(0.1)	14,405	(0.0)	131,424	(0.3)	(117,019)
298	METAL ROLLING, CASTING ETC. NES	135,544	(0.1)	79,651	(0.2)	55,893	(0.1)	23,758
297	COPPER AND COPPER ALLOY ROLLING ETC.	124,054	(0.1)	69,223	(0.1)	54,831	(0.1)	14,393
329	MISCELLANEOUS VEHICLE MANUFACTURERS	120,508	(0.1)	85,760	(0.2)	34,748	(0.1)	51,011
303	ORNAMENTAL & ARCHITECTURAL METAL	116,535	(0.1)	99,292	(0.2)	17,244	(0.0)	82,048
107	BAKERY PRODUCTS	109,115	(0.1)	87,501	(0.2)	21,614	(0.0)	65,887
307	HEATING EQUIPTMENT MFRS.	102,079	(0.1)	64,772	(0.1)	37,307	(0.1)	27,465
352	CEMENT MANUFACTURERS	101,311	(0.1)	90,451	(0.2)	10,861	(0.0)	79,590
377	MFRS OF TOILET PREPARATIONS	91,442	(0.1)	24,937	(0.0)	66,505	(0.1)	(41,568)
254	SASH, DOOR & OTHER MILLWORK PLANTS	83,956	(0.1)	40,006	(0.1)	43,950	(0.1)	(3,944)
252	VENEER AND PLYWOOD MILLS	81,555	(0.1)	58,724	(0.1)	22,831	(0.0)	35,893
273	PAPER BOX AND BAG MANUFACTURERS	79,346	(0.1)	24,105	(0.0)	55,241	(0.1)	(31,135)
102	FISH PRODUCTS	72,291	(0.1)	35,839	(0.1)	36,452	(0.1)	(613)
239	KNITTING	68,590	(0.1)	6,825	(0.0)	61,766	(0.1)	(54,941)
105	FLOUR & BREAKFAST CEREAL PRODUCTS	66,170	(0.1)	25,218	(0.1)	40,951	(0.1)	(15,733)
106	FEED	58,868	(0.1)	24,680	(0.0)	34,188	(0.1)	(9,509)
272	ASPHALT ROOFING MANUFACTURERS	57,878	(0.1)	56,405	(0.1)	1,473	(0.0)	54,932
301	BOILER AND PLATE WORKS	50,051	(0.1)	23,597	(0.0)	26,454	(0.1)	(2,857)
181	COTTON YARN & CLOTH	47,990	(0.0)	2,981	(0.0)	45,009	(0.1)	(42,029)

TABLE C4 - CONTINUED

SIC CODE	NAME OF INDUSTRY	TOTAL TRADE WITH THE U.S. 1985 ($000)		EXPORTS TO THE U.S. 1985 ($000)		IMPORTS FROM THE U.S. 1985 ($000)		TRADE BALANCE WITH THE U.S. 1985 ($000)
376	MFRS OF SOAP AND CLEANING COMPOUNDS	44,618	(0.0)	42,513	(0.1)	2,105	(0.0)	40,408
186	CARPETS, MATS & RUGS	42,800	(0.0)	12,157	(0.0)	30,642	(0.1)	(18,485)
172	LEATHER TANNERIES	41,835	(0.0)	26,517	(0.1)	15,318	(0.0)	11,200
397	SIGNS AND DISPLAYS INDUSTRY	37,639	(0.0)	22,699	(0.0)	14,940	(0.0)	7,758
351	CLAY PRODUCTS MANUFACTURERS	34,609	(0.0)	1,159	(0.0)	33,450	(0.1)	(32,291)
151	LEAF TOBACCO PROCESSORS	34,508	(0.0)	31,357	(0.1)	3,151	(0.0)	28,206
372	MANUFACTURERS OF MIXED FERTILIZERS	34,368	(0.0)	19,692	(0.0)	14,677	(0.0)	5,015
249	MISC. CLOTHING	33,258	(0.0)	25,005	(0.0)	8,253	(0.0)	16,751
174	SHOES	33,216	(0.0)	18,355	(0.0)	14,862	(0.0)	3,493
244	WOMEN'S CLOTHING	28,263	(0.0)	19,145	(0.0)	9,119	(0.0)	10,026
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	26,881	(0.0)	13,728	(0.0)	13,153	(0.0)	575
246	FUR GOODS	26,714	(0.0)	26,113	(0.1)	601	(0.0)	25,512
354	CONCRETE PRODUCTS MANUFACTURERS	26,461	(0.0)	23,246	(0.0)	3,215	(0.0)	20,030
287	PLATEMAKING, TYPESETTING ETC. IND.	20,357	(0.0)	794	(0.0)	19,563	(0.0)	(18,769)
243	MEN'S CLOTHING	20,201	(0.0)	12,186	(0.0)	8,015	(0.0)	4,171
185	FELT & FIBRE PROCESSING	16,929	(0.0)	6,664	(0.0)	10,265	(0.0)	(3,602)
104	DAIRY PRODUCTS	16,549	(0.0)	6,481	(0.0)	10,068	(0.0)	(3,586)
327	SHIPBUILDING AND REPAIR	11,870	(0.0)	8,635	(0.0)	3,235	(0.0)	5,399
182	WOOL YARN & CLOTH	11,552	(0.0)	2,739	(0.0)	8,813	(0.0)	(6,074)
256	WOODEN BOX FACTORIES	9,153	(0.0)	2,795	(0.0)	6,357	(0.0)	(3,562)
184	CORDAGE & TWINE	8,817	(0.0)	3,720	(0.0)	5,097	(0.0)	(1,378)
353	STONE PRODUCTS MANUFACTURERS	8,791	(0.0)	4,408	(0.0)	4,383	(0.0)	26
231	HOSIERY	7,193	(0.0)	1,372	(0.0)	5,820	(0.0)	(4,448)
358	LIME MANUFACTURERS	7,103	(0.0)	5,904	(0.0)	1,199	(0.0)	4,705
245	CHILDREN'S CLOTHING	5,682	(0.0)	2,135	(0.0)	3,547	(0.0)	(1,412)
153	TOBACCO PRODUCTS	4,523	(0.0)	4,523	(0.0)	-	-	-
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	2,288	(0.0)	1,259	(0.0)	1,029	(0.0)	231
248	FOUNDATION GARMENTS	687	(0.0)	50	(0.0)	637	(0.0)	(587)
175	LEATHER GLOVES	325	(0.0)	99	(0.0)	226	(0.0)	(126)
308	MACHINE SHOPS	-	-	-	-	-	-	-
268	ELECTRIC LAMP AND SHADE MFRS.	-	-	-	-	893	(0.0)	-
302	FAB. STRUCTURAL METAL INDUSTRY	-	-	-	-	1,069	(0.0)	-
355	READY-MIX CONCRETE MANUFACTURERS	-	-	-	-	-	-	-
258	COFFIN AND CASKET INDUSTRY	-	-	-	-	6,930	(0.0)	-
188	AUTO. FABRIC ACCESSORIES	-	-	-	-	-	-	-
	TOTAL ALL INDUSTRIES	100,012,813	(100.0)	50,172,423	(100.0)	49,840,390	(100.0)	332,033

e ESTIMATED

TABLE C5
ONTARIO MANUFACTURING
PERCENTAGE SHARE OF SHIPMENTS, 1984
BY INDUSTRY AND DESTINATION

SIC CODE	NAME OF INDUSTRY	TOTAL SHIPMENTS	WITHIN ONTARIO	EXPORTS	TO REST OF CANADA				UNALLOCATED (BY INDUSTRY)
					ATLANTIC	QUEBEC	PRAIRIES	B.C.	
1	FOOD AND BEVERAGE INDUSTRIES	100.0	70.9	5.7	3.6	10.4	5.8	2.6	0.9
2	TOBBACCO PRODUCTS INDUSTRIES	100.0	42.0	N/A	N/A	27.7	N/A	N/A	30.3
3	RUBBER AND PLASTIC INDUSTRIES	100.0	63.4	12.5	2.2	6.2	3.9	1.3	10.4
4	LEATHER INDUSTRIES	100.0	60.7	N/A	N/A	N/A	6.5	N/A	30.8
5	TEXTILE INDUSTRIES	100.0	49.3	11.1	1.4	28.1	4.5	2.3	3.3
6	KNITTING MILLS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	CLOTHING INDUSTRIES	100.0	59.5	2.3	4.7	15.6	11.6	6.3	N/A
8	WOOD INDUSTRIES	100.0	68.3	22.6	0.9	6.1	N/A	N/A	2.1
9	FURNITURE & FIXTURE INDUSTRIES	100.0	64.9	13.4	2.4	8.7	7.0	3.6	N/A
10	PAPER & ALLIED INDUSTRIES	100.0	47.5	33.3	2.3	11.4	4.0	1.5	N/A
11	PRINTING & PUBLISHING	100.0	85.5	1.3	1.8	5.4	3.9	2.1	N/A
12	PRIMARY METAL	100.0	64.6	23.0	0.9	5.6	4.6	1.2	N/A
13	METAL FABRICATION	100.0	68.1	12.7	2.2	7.4	6.6	2.9	N/A
14	MACHINERY	100.0	45.0	35.4	2.1	7.0	6.9	3.6	N/A
15	TRANSPORTATION EQUIPMENT	100.0	16.8	75.9	0.9	3.0	2.7	0.7	N/A
16	ELECTRICAL PRODUCTS	100.0	45.8	30.3	2.5	10.2	7.4	3.7	N/A
17	NON-METALLIC MINERALS	100.0	65.5	17.9	2.1	10.5	3.0	1.1	N/A
18	PETROLEUM & COAL PRODUCTS	100.0	61.0	10.6	3.6	13.1	8.3	3.5	N/A
19	CHEMICALS & CHEMICAL PRODUCTS	100.0	82.2	9.7	N/A	N/A	N/A	N/A	8.1
20	MISCELLANEOUS MANUFACTURING	100.0	57.9	16.3	2.8	10.2	8.6	4.2	N/A
	TOTAL ALL INDUSTRIES	100.0	51.6	31.3	2.0	8.0	5.1	2.1	

SOURCE: STATISTICS CANADA

TABLE C6
ONTARIO MANUFACTURING INDUSTRIES
DEGREE OF TRADE ORIENTATION WITH THE UNITED STATES

SIC	NAME OF INDUSTRY	TRADE ORIENTATION 1	EXPORTS TO U.S. AS % SHIPMENTS 1985	EXPORTS TO U.S. AS % SHIPMENTS 1980	EXPORTS TO U.S. AS % SHIPMENTS CHANGE 1980-85	IMPORTS FROM U.S. AS % DOMESTIC MKT 1985	IMPORTS FROM U.S. AS % DOMESTIC MKT 1980	IMPORTS FROM U.S. AS % DOMESTIC MKT CHANGE 1980-85
101	MEAT & POULTRY PRODUCTS	LOW TRADE	3.8	3.5	0.3	4.7	3.9	0.8
102	FISH PRODUCTS	UNAVAILABLE	-	-	-	-	-	-
103	FRUIT & VEGETABLE PROCESSING	LOW TRADE	2.7	1.7	0.9	10.3	10.7	-0.4
104	DAIRY PRODUCTS	LOW TRADE	0.3	0.1	0.1	0.4	0.4	0.1
105	FLOUR & BREAKFAST CEREAL PRODUCTS	LOW TRADE	2.5	3.6	-1.1	4.0	3.1	1.0
106	FEED	LOW TRADE	2.4	1.9	0.4	3.3	2.4	0.9
107	BAKERY PRODUCTS	LOW TRADE	7.4	5.0	2.4	1.9	1.6	0.4
108	MISC. FOODS	UNAVAILABLE	-	-	-	-	-	-
109	BEVERAGES	EXPORT ORIENTED	13.6	16.9	-3.2	0.8	0.7	0.1
151	LEAF TOBACCO PROCESSORS	UNAVAILABLE	-	-	-	-	-	-
153	TOBACCO PRODUCTS	UNAVAILABLE	-	-	-	-	-	-
162	RUBBER PRODUCTS	TWO WAY TRADE	14.6	8.7	5.9	15.5	13.1	2.4
165	PLASTIC FABRICATING (NES)	LOW TRADE	9.0	3.7	5.3	13.5	10.8	2.7
172	LEATHER TANNERIES	EXPORT ORIENTED	13.1	15.3	-2.2	8.0	13.3	-5.2
174	SHOES	LOW TRADE	3.0	4.2	-1.1	2.5	3.1	-0.6
175	LEATHER GLOVES	LOW TRADE	0.5	0.1	0.4	1.0	0.3	0.7
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	LOW TRADE	8.6	2.5	6.1	8.3	9.2	-0.9
181	COTTON YARN & CLOTH	UNAVAILABLE	-	-	-	-	-	-
182	WOOL YARN & CLOTH	LOW TRADE	3.2	1.9	1.3	9.6	5.6	4.0
183	MAN-MADE FIBRE, YARN & CLOTH	IMPORTING	7.6	3.2	4.4	18.1	16.6	1.5
184	CORDAGE & TWINE	LOW TRADE	11.9	4.1	7.7	15.6	14.6	1.0
185	FELT & FIBRE PROCESSING	LOW TRADE	8.8	12.6	-3.9	12.9	13.0	-0.1
186	CARPETS, MATS & RUGS	UNAVAILABLE	-	-	-	-	-	-
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	LOW TRADE	1.3	0.3	1.0	1.1	3.2	-2.2
188	AUTO. FABRIC ACCESSORIES	UNAVAILABLE	-	-	-	-	-	-
189	MISC. TEXTILES	IMPORTING	4.6	3.2	1.5	18.0	20.0	-1.9
231	HOSIERY	LOW TRADE	1.3	0.6	0.7	5.4	10.1	-4.7
239	KNITTING	IMPORTING	2.7	1.0	1.7	20.1	17.4	2.7
243	MEN'S CLOTHING	LOW TRADE	1.7	0.9	0.8	1.1	1.8	-0.6
244	WOMEN'S CLOTHING	LOW TRADE	4.7	1.7	3.0	2.3	2.1	0.2
245	CHILDREN'S CLOTHING	LOW TRADE	2.8	2.5	0.3	4.6	2.9	1.7
246	FUR GOODS	EXPORT ORIENTED	47.1	16.2	30.9	2.0	1.1	0.9
248	FOUNDATION GARMENTS	LOW TRADE	0.1	0.1	0.0	1.1	3.2	-2.1
249	MISC. CLOTHING	EXPORT ORIENTED	25.2	12.3	12.9	10.0	6.0	4.0
251	SAWMILLS, PLANING AND SHINGLE MILLS	EXPORT ORIENTED	-	-	-	-	-	-
252	VENEER AND PLYWOOD MILLS	EXPORT ORIENTED	38.7	26.9	11.8	19.7	14.0	5.7
254	SASH, DOOR & OTHER MILLWORK PLANTS	LOW TRADE	6.2	3.0	3.2	6.7	4.6	2.2
256	WOODEN BOX FACTORIES	LOW TRADE	1.6	1.8	-0.2	3.5	3.1	0.4
258	COFFIN AND CASKET INDUSTRY	UNAVAILABLE	-	-	-	41.6	38.3	3.3
259	MISCELLANEOUS WOOD INDUSTRIES	EXPORT ORIENTED	57.0	34.9	22.1	18.1	13.6	4.4

TABLE C6 - CONTINUED

SIC	NAME OF INDUSTRY	TRADE ORIENTATION [1]	EXPORTS TO U.S. AS % SHIPMENTS			IMPORTS FROM U.S. AS % DOMESTIC MKT		
			1985	1980	CHANGE 1980-85	1985	1980	CHANGE 1980-85
261	HOUSEHOLD FURNITURE MANUFACTURERS	LOW TRADE	12.1	3.2	8.9	8.2	7.5	0.7
264	OFFICE FURNITURE MANUFACTURERS	EXPORT ORIENTED	46.2	32.5	13.7	7.8	8.4	-0.6
266	MISC. FURNITURE AND FIXTURE MFRS.	EXPORT ORIENTED	21.8	9.3	12.5	8.4	5.1	3.3
268	ELECTRIC LAMP AND SHADE MFRS.	LOW TRADE	-	-	-	2.3	3.3	-1.0
271	PULP AND PAPER MILLS	EXPORT ORIENTED	50.2	55.5	-5.3	13.9	13.1	0.8
272	ASPHALT ROOFING MANUFACTURERS	EXPORT ORIENTED	31.2	38.6	-7.3	1.2	1.1	0.1
273	PAPER BOX AND BAG MANUFACTURERS	LOW TRADE	1.3	0.3	0.9	2.9	3.4	-0.5
274	MISCELLANEOUS PAPER CONVERTERS	LOW TRADE	6.1	5.4	0.7	9.3	9.3	-0.0
286	COMMERCIAL PRINTING	LOW TRADE	3.2	2.1	1.1	7.6	8.8	-1.1
287	PLATEMAKING, TYPESETTING ETC. IND.	LOW TRADE	0.2	0.5	-0.3	5.3	7.2	-1.8
288	PUBLISHING ONLY	IMPORTING	6.9	11.1	-4.2	36.9	41.5	-4.6
289	PUBLISHING AND PRINTING	IMPORTING	8.5	2.1	6.4	18.4	15.1	3.3
291	IRON AND STEEL MILLS	EXPORT ORIENTED	16.5	15.1	1.4	8.2	7.0	1.2
292	STEEL PIPE AND TUBE MILLS	EXPORT ORIENTED	47.0	51.5	-4.6	18.1	24.1	-5.9
294	IRON FOUNDRIES	TWO WAY TRADE	15.9	20.8	-4.9	14.5	18.7	-4.2
295	SMELTING AND REFINING	UNAVAILABLE	79.4	-	-	-	-	-
296	ALUMINUM ROLLING, CASTING ETC.	TWO WAY TRADE	24.1	12.1	12.0	40.9	37.5	3.4
297	COPPER AND COPPER ALLOY ROLLING ETC.	LOW TRADE	11.7	11.2	0.5	9.5	9.2	0.3
298	METAL ROLLING, CASTING ETC. NES	LOW TRADE	11.7	23.9	-12.1	8.5	17.1	-8.6
301	BOILER AND PLATE WORKS	LOW TRADE	3.5	5.2	-1.6	4.0	8.4	-4.5
302	FAB. STRUCTURAL METAL INDUSTRY	LOW TRADE	-	-	-	0.2	2.8	-2.6
303	ORNAMENTAL & ARCHITECTURAL METAL	EXPORT ORIENTED	13.8	-	-	2.7	0.3	2.4
304	METAL STAMPING, PRESSING AND COATING	LOW TRADE	2.3	1.2	1.1	5.7	4.1	1.6
305	WIRE AND WIRE PRODUCTS MFRS.	IMPORTING	17.9	13.3	4.7	24.7	19.7	5.1
306	HARDWARE, TOOL AND CUTLERY MFRG.	TWO WAY TRADE	32.8	18.1	14.7	31.6	23.5	8.0
307	HEATING EQUIPMENT MFRS.	EXPORT ORIENTED	20.0	5.1	14.9	12.6	5.8	6.8
308	MACHINE SHOPS	UNAVAILABLE	-	-	-	-	-	-
309	MISC. METAL FABRICATING INDS.	TWO WAY TRADE	23.7	8.2	15.5	30.8	20.7	10.1
311	AGRICULTURAL IMPLEMENT INDUSTRY	TWO WAY TRADE	46.2	64.7	-18.5	55.2	64.7	-9.5
315	MISC. MACHINERY & EQUIPMENT MFRS.	TWO WAY TRADE	35.3	22.4	12.9	52.5	47.2	5.3
316	COMMERCIAL REFRIG. AIR COND. MFRS.	TWO WAY TRADE	22.1	9.4	12.7	45.4	33.2	12.2
318	OFFICE AND STORE MACHINERY MFRS.	TWO WAY TRADE	69.1	55.8	13.3	84.9	80.3	4.7
321	AIRCRAFT & AIRCRAFT PARTS MFRS.	TWO WAY TRADE	70.0	65.2	4.8	61.0	64.5	-3.5
323	MOTOR VEHICLE MANUFACTURERS	TWO WAY TRADE	50.0	37.0	13.1	32.8	27.6	5.2
324	TRUCK BODY AND TRAILER MFRS.	TWO WAY TRADE	12.7	8.4	4.3	12.8	7.4	5.4
325	MOTOR VEHICLE PARTS AND ACCESSORIES	TWO WAY TRADE	93.8	83.6	10.1	95.7	91.5	4.2
326	RAILROAD ROLLING STOCK INDUSTRY	IMPORTING	3.2	14.3	-11.1	12.3	12.5	-0.3
327	SHIPBUILDING AND REPAIR	LOW TRADE	4.5	1.4	3.1	1.7	1.6	0.1
328	BOATBUILDING AND REPAIR	TWO WAY TRADE	64.1	41.4	22.8	49.5	36.5	13.0
329	MISCELLANEOUS VEHICLE MANUFACTURERS	UNAVAILABLE	-	-	-	-	-	-
331	MFRS OF SMALL ELECTRICAL APPLIANCES	IMPORTING	8.0	4.9	3.0	31.0	31.6	-0.6
332	MANUFACTURERS OF MAJOR APPLIANCES	LOW TRADE	7.0	4.1	2.9	13.8	13.2	0.6
333	MANUFACTURERS OF LIGHTING FIXTURES	IMPORTING	7.5	2.3	5.2	47.2	36.0	11.1
334	MFRS. OF HOUSEHOLD RADIO AND TV	TWO WAY TRADE	29.3	15.0	14.3	37.9	33.6	4.3
335	COMMUNICATIONS EQUIPMENT MFRS.	TWO WAY TRADE	32.8	22.5	10.3	40.5	36.8	3.6
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	IMPORTING	10.4	6.7	3.7	18.3	19.7	-1.3
338	MFRS OF ELECTRIC WIRE AND CABLE	TWO WAY TRADE	10.0	5.0	5.0	11.0	6.2	4.8
339	MFRS OF MISC. ELECTRICAL PRODUCTS	IMPORTING	10.9	9.6	1.3	24.4	22.0	2.4

TABLE C6 - CONTINUED

SIC	NAME OF INDUSTRY	TRADE ORIENTATION[1]	EXPORTS TO U.S. AS % SHIPMENTS			IMPORTS FROM U.S. AS % DOMESTIC MKT		
			1985	1980	CHANGE 1980-85	1985	1980	CHANGE 1980-85
351	CLAY PRODUCTS MANUFACTURERS	IMPORTING	0.9	0.5	0.4	21.6	13.3	8.3
352	CEMENT MANUFACTURERS	EXPORT ORIENTED	36.4	27.9	8.6	6.4	5.8	0.7
353	STONE PRODUCTS MANUFACTURERS	TWO WAY TRADE	31.5	9.7	21.9	31.4	23.4	8.0
354	CONCRETE PRODUCTS MANUFACTURERS	LOW TRADE	7.6	3.9	3.7	1.1	0.6	0.5
355	READY-MIX CONCRETE MANUFACTURERS	UNAVAILABLE	-	-	-	-	-	-
356	GLASS AND GLASS PRODUCTS MFRS.	IMPORTING	5.2	3.7	1.4	21.8	23.6	-1.8
357	ABRASIVES MANUFACTURERS	TWO WAY TRADE	54.4	42.5	11.9	43.5	35.9	7.5
358	LIME MANUFACTURERS	LOW TRADE	6.2	20.0	-13.7	1.3	4.2	-2.9
359	MISC. NON-METALLIC MINERAL PRODS.	IMPORTING	16.3	4.7	11.5	28.2	22.8	5.4
365	PETROLEUM REFINERIES	LOW TRADE	6.3	6.5	-0.3	2.7	2.1	0.6
369	MISC. PETROLEUM & COAL PRODS. INDS.	UNAVAILABLE	-	-	-	-	-	-
372	MANUFACTURERS OF MIXED FERTILIZERS	LOW TRADE	9.8	6.1	3.7	7.5	8.9	-1.4
373	MFRS OF PLASTICS & SYNTHETIC RESINS	TWO WAY TRADE	31.5	26.8	4.8	49.8	44.0	5.8
374	MFRS PHARMACEUTICALS AND MEDICINES	IMPORTING	2.4	1.4	1.0	12.1	12.7	-0.5
375	PAINT AND VARNISH MANUFACTURERS	IMPORTING	1.9	1.0	0.9	15.0	9.8	5.2
376	MFRS OF SOAP AND CLEANING COMPOUNDS	LOW TRADE	3.1	0.8	2.3	0.2	0.3	-0.2
377	MFRS OF TOILET PREPARATIONS	LOW TRADE	4.8	2.1	2.7	11.8	19.7	-7.9
378	MFRS OF INDUSTRIAL CHEMICALS	TWO WAY TRADE	18.8	23.3	-4.6	17.9	22.6	-4.7
379	MISCELLANEOUS CHEMICAL INDUSTRIES	IMPORTING	5.1	5.7	-0.6	28.0	29.6	-1.6
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	TWO WAY TRADE	44.5	27.0	17.5	63.2	48.9	14.3
392	JEWELLERY AND SILVERWARE INDUSTRY	TWO WAY TRADE	11.1	1.5	9.6	10.7	5.2	5.5
393	SPORTING GOODS AND TOY INDUSTRIES	IMPORTING	3.4	8.0	-4.5	17.4	20.8	-3.4
397	SIGNS AND DISPLAYS INDUSTRY	LOW TRADE	11.2	1.9	9.3	7.7	4.1	3.6
399	MISC. MANUFACTURING IND. NES	TWO WAY TRADE	23.2	11.5	11.7	53.4	40.1	13.3
	AVERAGE FOR ALL INDUSTRIES[2]		19.0	14.2	5.8	22.2	19.2	3.0

[1] DEFINED AS FOLLOWS:

TWO WAY TRADE = EXPORTS TO THE U.S. REPRESENT MORE THAN ABOUT 19 PER CENT OF TOTAL INDUSTRY SHIPMENTS WHILE IMPORTS FROM THE U.S. ACCOUNT FOR MORE THAN ABOUT 22 PER CENT OF APPARENT PROVINCIAL CONSUMPTION.

EXPORTING = EXPORTS TO THE U.S. REPRESENT MORE THAN ABOUT 19 PER CENT OF TOTAL INDUSTRY SHIPMENTS WHILE IMPORTS FROM THE U.S. ACCOUNT FOR LESS THAN ABOUT 22 PER CENT OF APPARENT PROVINCIAL CONSUMPTION.

IMPORTING = EXPORTS TO THE U.S. REPRESENT LESS THAN ABOUT 19 PER CENT OF TOTAL INDUSTRY SHIPMENTS WHILE IMPORTS FROM THE U.S. ACCOUNT FOR MORE THAN ABOUT 22 PER CENT OF APPARENT PROVINCIAL CONSUMPTION.

LOW TRADE = EXPORTS TO THE U.S. REPRESENT LESS THAN ABOUT 19 PER CENT OF TOTAL INDUSTRY SHIPMENTS WHILE IMPORTS FROM THE U.S. ACCOUNT FOR LESS THAN ABOUT 22 PER CENT OF APPARENT PROVINCIAL CONSUMPTION.

UNAVAILABLE = TRADE DATA INCOMPLETE

(ALSO INCLUDES SOME QUALITATIVE JUDGEMENT IN CASES WHERE FIGURES ARE CLOSE TO THE MARGIN)

[2] AVERAGE EXCLUDES AUTOMOTIVE TRADE FIGURES

TABLE C7
ONTARIO MANUFACTURING INDUSTRIES
PRINCIPAL STATISTICS FOR TRADE GROUPS

(TWO WAY TRADE)		1985 PRODUCTION DATA		1985 TRADE WITH THE U.S.			
SIC	NAME OF INDUSTRY	EMPLOYMENT	SHIPMENTS	EXPORTS	IMPORTS	TRADE BALANCE	CHANGE IN NTB 1980-85
		(#)	($000)	($000)	($000)	($000)	(%)
296	ALUMINUM ROLLING, CASTING ETC.	4,359	872,649	210,204	458,841	(248,637)	25.4
309	MISC. METAL FABRICATING INDS.	10,315	1,420,421	336,781	481,613	(144,833)	31.4
357	ABRASIVES MANUFACTURERS	1,783	217,254	118,109	76,212	41,897	7.9
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	18,518	1,493,146	665,191	1,423,547	(758,356)	7.9
324	TRUCK BODY AND TRAILER MFRS.	3,805	612,332	77,859	78,525	(666)	-7.3
306	HARDWARE, TOOL AND CUTLERY MFRS.	11,364	1,039,002	341,310	321,841	19,469	19.4
323	MOTOR VEHICLE MANUFACTURERS	42,147	39,477,649	19,754,073	9,630,184	10,123,889	13.4
334	MFRS. OF HOUSEHOLD RADIO AND TV	2,844	654,861	191,575	282,698	(91,123)	29.3
318	OFFICE AND STORE MACHINERY MFRS.	7,730	1,825,300	1,261,356	3,175,665	(1,914,309)	9.5
294	IRON FOUNDRIES	5,864	623,114	99,136	88,961	10,175	-1.5
315	MISC. MACHINERY & EQUIPTMENT MFRS.	31,631	4,801,995	1,696,197	3,426,325	(1,730,128)	17.3
378	MFRS OF INDUSTRIAL CHEMICALS	15,005	6,064,170	1,137,607	1,072,993	64,614	0.7
162	RUBBER PRODUCTS	19,882	2,794,633	407,993	436,329	(28,335)	19.2
335	COMMUNICATIONS EQUIPTMENT MFRS.	25,980	2,716,893	891,821	1,241,143	(349,321)	17.2
325	MOTOR VEHICLE PARTS AND ACCESSORIES	59,534	11,248,225	10,548,699	15,729,855	(5,181,156)	16.0
338	MFRS OF ELECTRIC WIRE AND CABLE	5,040	781,378	77,990	86,533	(8,543)	6.4
321	AIRCRAFT & AIRCRAFT PARTS MFRS.	13,539	1,234,476	863,863	580,248	283,615	18.1
353	STONE PRODUCTS MANUFACTURERS	190	13,974	4,408	4,383	26	48.5
311	AGRICULTURAL IMPLEMENT INDUSTRY	4,802	762,874	352,440	504,863	(152,423)	-17.7
373	MFRS OF PLASTICS & SYNTHETIC RESINS	3,462	1,255,351	395,976	852,722	(456,746)	-0.1
399	MISC. MANUFACTURING IND. NES	8,321	620,043	144,075	545,813	(401,738)	9.1
392	JEWELLERY AND SILVERWARE INDUSTRY	6,134	704,115	78,320	75,159	3,161	57.8
316	COMMERCIAL REFRIG. AIR COND. MFRS.	2,557	342,755	75,844	221,930	(146,086)	16.2
328	BOATBUILDING AND REPAIR	-	156,001	100,023	54,919	45,104	18.9
	ALL TWO WAY TRADE	304,806	81,732,611	39,830,849	40,851,301	(1,020,452)	-
	(AS A PERCENTAGE OF ALL MANUFACTURING)	34.7	52.2	79.4	82.0	-	-
	ALL MANUFACTURING	877,800	156,489,806	50,172,423	49,840,390	332,033	14.3

NTB (NORMALIZED TRADE BALANCE) - DEFINED AS ((EXPORTS - IMPORTS)/(EXPORTS + IMPORTS)).

TABLE C7 - CONTINUED

SIC	(EXPORT ORIENTED) NAME OF INDUSTRY	1985 PRODUCTION DATA EMPLOYMENT (#)	SHIPMENTS ($000)	1985 TRADE WITH THE U.S. EXPORTS ($000)	IMPORTS ($000)	TRADE BALANCE ($000)	CHANGE IN NTB 1980-85 (%)
266	MISC. FURNITURE AND FIXTURE MFRS.	7,130	618,184	134,761	44,45[illegible]	90,303	19.0
249	MISC. CLOTHING	1,708	99,247	25,005	8,253	16,751	13.0
246	FUR GOODS	600	55,441	26,113	601	25,512	6.3
259	MISCELLANEOUS WOOD INDUSTRIES	2,664	251,419	143,384	23,801	119,583	16.9
352	CEMENT MANUFACTURERS	1,360	248,185	90,451	10,861	79,590	6.0
252	VENEER AND PLYWOOD MILLS	2,193	151,692	58,724	22,831	35,893	5.3
291	IRON AND STEEL MILLS	38,892	7,509,094	1,239,650	563,427	676,223	-2.8
272	ASPHALT ROOFING MANUFACTURERS	426	180,563	56,405	1,473	54,932	-1.7
292	STEEL PIPE AND TUBE MILLS	2,770	617,357	290,025	72,453	217,572	5.9
264	OFFICE FURNITURE MANUFACTURERS	4,217	480,121	221,638	21,932	199,705	14.1
303	ORNAMENTAL & ARCHITECTURAL METAL	5,326	717,894	99,292	17,244	82,048	-
271	PULP AND PAPER MILLS	19,360	4,082,640	2,047,627	328,520	1,719,107	-6.1
109	BEVERAGES	12,941	2,488,165	339,109	16,523	322,586	-2.9
251	SAWMILLS, PLANING AND SHINGLE MILLS	6,636	685,689	865,936	130,426	735,510	20.2
307	HEATING EQUIPMENT MFRS.	3,416	323,793	64,772	37,307	27,465	33.4
172	LEATHER TANNERIES	1,229	202,440	26,517	15,318	11,200	18.5
	ALL EXPORT ORIENTED	110,868	18,711,924	5,729,408	1,315,429	4,413,980	-
	(AS A PERCENTAGE OF ALL MANUFACTURING)	12.6	12.0	11.4	2.6	-	-
	ALL MANUFACTURING	877,800	156,489,806	50,172,423	49,840,390	332,033	14.3

TABLE C7 - CONTINUED

(IMPORTING)		1985 PRODUCTION DATA		1985 TRADE WITH THE U.S.			
SIC	NAME OF INDUSTRY	EMPLOYMENT	SHIPMENTS	EXPORTS	IMPORTS	TRADE BALANCE	CHANGE IN NTB 1980-85
		(#)	($000)	($000)	($000)	($000)	(%)
305	WIRE AND WIRE PRODUCTS MFRS.	6,784	1,207,757	216,790	325,755	(108,965)	3.1
351	CLAY PRODUCTS MANUFACTURERS	1,569	122,814	1,159	33,450	(32,291)	-0.0
359	MISC. NON-METALLIC MINERAL PRODS.	4,238	547,358	89,085	179,686	(90,601)	37.5
379	MISCELLANEOUS CHEMICAL INDUSTRIES	11,109	2,149,179	109,995	793,750	(683,755)	-0.8
183	MAN-MADE FIBRE, YARN & CLOTH	8,451	1,048,543	79,826	214,319	(134,493)	26.0
289	PUBLISHING AND PRINTING	17,355	1,284,302	109,093	264,977	(155,884)	36.6
393	SPORTING GOODS AND TOY INDUSTRIES	5,803	707,898	24,290	144,220	(119,929)	-20.7
288	PUBLISHING ONLY	7,467	855,841	59,261	466,512	(407,250)	-7.4
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	16,496	2,374,212	245,908	477,532	(231,623)	22.6
375	PAINT AND VARNISH MANUFACTURERS	3,949	756,909	14,405	131,424	(117,019)	2.7
339	MFRS OF MISC. ELECTRICAL PRODUCTS	7,966	1,490,130	162,402	429,260	(266,859)	-0.0
356	GLASS AND GLASS PRODUCTS MFRS.	6,938	876,188	45,240	230,967	(185,727)	10.3
333	MANUFACTURERS OF LIGHTING FIXTURES	334	175,858	13,126	145,366	(132,240)	8.6
374	MFRS PHARMACEUTICALS AND MEDICINES	10,099	1,201,795	28,616	162,233	(133,618)	12.0
239	KNITTING	4,501	252,799	6,825	61,766	(54,941)	10.7
189	MISC. TEXTILES	2,047	664,845	30,826	139,610	(108,783)	13.1
331	MFRS OF SMALL ELECTRICAL APPLIANCES	3,407	631,540	50,305	261,105	(210,799)	12.1
326	RAILROAD ROLLING STOCK INDUSTRY	4,427	1,015,434	32,508	137,424	(104,915)	-69.5
	ALL IMPORTING	122,940	17,363,403	1,319,661	4,599,356	(3,279,695)	-
	(AS A PERCENTAGE OF ALL MANUFACTURING)	14.0	11.1	2.6	9.2	-	-
	ALL MANUFACTURING	877,800	156,489,806	50,172,423	49,840,390	332,033	14.3

TABLE C7 - CONTINUED

(LOW TRADE)		1985 PRODUCTION DATA		1985 TRADE WITH THE U.S.			
SIC	NAME OF INDUSTRY	EMPLOYMENT	SHIPMENTS	EXPORTS	IMPORTS	TRADE BALANCE	CHANGE IN NTB 1980-85
		(#)	($000)	($000)	($000)	($000)	(%)
273	PAPER BOX AND BAG MANUFACTURERS	11,820	1,896,921	24,105	55,241	(31,135)	43.4
298	METAL ROLLING, CASTING ETC. NES	2,617	677,984	79,651	55,893	23,758	-3.0
301	BOILER AND PLATE WORKS	3,630	666,451	23,597	26,454	(2,857)	20.1
103	FRUIT & VEGETABLE PROCESSING	8,471	1,402,999	37,214	156,357	(119,142)	12.7
302	FAB. STRUCTURAL METAL INDUSTRY	2,837	541,487	-	1,069	-	-47.0
365	PETROLEUM REFINERIES	12,162	10,924,297	684,378	282,281	402,098	-11.0
244	WOMEN'S CLOTHING	6,697	408,288	19,145	9,119	10,026	44.7
268	ELECTRIC LAMP AND SHADE MFRS.	618	38,763	-	893	-	-
304	METAL STAMPING, PRESSING AND COATING	14,343	2,250,054	52,359	131,648	(79,290)	12.7
104	DAIRY PRODUCTS	8,406	2,381,884	6,481	10,068	(3,586)	22.0
174	SHOES	8,306	602,487	18,355	14,862	3,493	-4.7
274	MISCELLANEOUS PAPER CONVERTERS	9,793	1,751,449	106,581	167,853	(61,272)	5.9
243	MEN'S CLOTHING	12,452	706,010	12,186	8,015	4,171	53.6
287	PLATEMAKING, TYPESETTING ETC. IND.	5,839	349,794	794	19,563	(18,769)	-4.3
332	MANUFACTURERS OF MAJOR APPLIANCES	5,435	880,234	61,536	130,558	(69,022)	20.0
376	MFRS OF SOAP AND CLEANING COMPOUNDS	6,429	1,367,146	42,513	2,105	40,408	52.0
106	FEED	3,782	1,032,562	24,680	34,188	(9,509)	-6.5
248	FOUNDATION GARMENTS	1,247	59,896	50	637	(587)	11.0
231	HOSIERY	1,749	104,255	1,372	5,820	(4,448)	27.8
107	BAKERY PRODUCTS	13,976	1,180,769	87,501	21,614	65,887	6.6
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	1,302	97,404	1,259	1,029	231	94.4
297	COPPER AND COPPER ALLOY ROLLING ETC.	1,794	589,586	69,223	54,831	14,393	0.6
165	PLASTIC FABRICATING (NES)	23,518	2,573,795	231,040	365,775	(134,735)	29.4
261	HOUSEHOLD FURNITURE MANUFACTURERS	13,538	865,443	104,407	68,108	36,299	63.7
185	FELT & FIBRE PROCESSING	865	76,155	6,664	10,265	(3,602)	-19.6
256	WOODEN BOX FACTORIES	2,287	179,258	2,795	6,357	(3,562)	-11.4
184	CORDAGE & TWINE	372	31,359	3,720	5,097	(1,378)	44.2
286	COMMERCIAL PRINTING	30,139	2,402,889	77,798	191,551	(113,752)	20.7
397	SIGNS AND DISPLAYS INDUSTRY	3,524	202,743	22,699	14,940	7,758	58.1
377	MFRS OF TOILET PREPARATIONS	4,468	522,107	24,937	66,505	(41,568)	38.3
182	WOOL YARN & CLOTH	1,273	85,700	2,739	8,813	(6,074)	-2.8
101	MEAT & POULTRY PRODUCTS	14,921	3,941,181	151,193	187,007	(35,814)	-4.6
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	2,619	159,813	13,728	13,153	575	62.0
358	LIME MANUFACTURERS	453	94,606	5,904	1,199	4,705	-3.8
175	LEATHER GLOVES	946	21,635	99	226	(126)	19.3
354	CONCRETE PRODUCTS MANUFACTURERS	3,260	306,311	23,246	3,215	20,030	2.0
105	FLOUR & BREAKFAST CEREAL PRODUCTS	2,951	996,693	25,218	40,951	(15,733)	-32.7
372	MANUFACTURERS OF MIXED FERTILIZERS	479	200,003	19,692	14,677	5,015	34.9
245	CHILDREN'S CLOTHING	773	75,437	2,135	3,547	(1,412)	-17.0
254	SASH, DOOR & OTHER MILLWORK PLANTS	7,475	649,518	40,006	43,950	(3,944)	16.7
327	SHIPBUILDING AND REPAIR	2,808	193,659	8,635-	3,235	5,399	55.1
	ALL LOW TRADE	260,375	43,489,023	2,119,637	2,238,671	(117,071)	-
	(AS A PERCENTAGE OF ALL MANUFACTURING)	29.7	27.8	4.2	4.5	-	-
	ALL MANUFACTURING	877,800	156,489,805	50,172,423	49,840,390	332,033	14.3

TABLE C7 - CONTINUED

(UNAVAILABLE)		1985 PRODUCTION DATA		1985 TRADE WITH THE U.S.			
SIC	NAME OF INDUSTRY	EMPLOYMENT	SHIPMENTS	EXPORTS	IMPORTS	TRADE BALANCE	CHANGE IN NTB 1980-85
		(#)	($000)	($000)	($000)	($000)	(%)
108	MISC. FOODS	15,331	-	257,611	377,763	(120,152)	50.2
181	COTTON YARN & CLOTH	-	-	2,981	45,009	(42,029)	5.3
258	COFFIN AND CASKET INDUSTRY	177	9,735	-	6,930	-	-
369	MISC. PETROLEUM & COAL PRODS. INDS.	138	35,535	190,155	69,260	120,894	11.0
151	LEAF TOBACCO PROCESSORS	-	-	31,357	3,151	28,206	12.6
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-	11,559	85,760	34,748	51,011	7.2
153	TOBACCO PRODUCTS	-	-	4,523	-	-	-
295	SMELTING AND REFINING	6,863	695,807	552,486	231,677	320,809	6.1
188	AUTO. FABRIC ACCESSORIES	5,007	642,761	-	-	-	-
355	READY-MIX CONCRETE MANUFACTURERS	2,508	389,565	-	-	-	-
102	FISH PRODUCTS	6,120	-	35,839	36,452	(613)	11.9
308	MACHINE SHOPS	4,384	325,112	-	-	-	-
186	CARPETS, MATS & RUGS	1,401	-	12,157	30,642	(18,485)	14.4
	ALL UNAVIALABLE	41,929	2,110,074	1,172,867	835,634	339,640	-
	(AS A PERCENTAGE OF ALL MANUFACTURING)	4.8	1.3	2.3	1.7	-	-
	ALL MANUFACTURING	877,800	156,489,806	50,172,423	49,840,390	332,033	14.3

e ESTIMATED

NTB (NORMALIZED TRADE BALANCE) - DEFINED AS ((EXPORTS - IMPORTS)/(EXPORTS + IMPORTS)).

APPENDIX D

INTERNATIONAL CANADIAN MANUFACTURING COMPETITIVENESS

APPENDIX D

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Table D1

Increase in Volume of Manufactured Exports

Selected Countries

1970-1979

Country	Percent	Ratio (U.S. = 1.00)
Japan	122	1.54
Italy	110	1.39
France	103	1.30
Netherlands	89	1.13
United States	79	1.00
Canada	79	.89
West Germany	63	.80
United Kingdom	55	.70

Source: Daly and MacCharles

Table D2

Growth in Output Per Hour In Manufacturing Selected Countries 1973-1984

Country	Percent
Japan	6.92
France	4.65
Italy	3.62
West Germany	3.54
United Kingdom	2.56
United States	2.00
Canada	1.87

Source: Daly and MacCharles

Table D3

Real Wages Per Hour and Real Output Per Hour
United States, Canada and Japan
1973 and 1984

	Real Wages (U.S. 1977 = 100)			Real Output (U.S. 1977 = 100)		
	1973	1984	% Change	1973	1974	% Change
United States	100.0	105.0	+5.0	93.0	115.6	+24.3
Japan	45.7	56.3	+23.2	48.3	100.8	+108.7
Canada	87.7	104.1	+18.7	68.1	83.5	+22.6

Source: Daly and MacCharles

Table D4
Indices of Unit Labour Costs, Manufacturing Sector
Selected Countries for 1984
After Adjustment for Exchange Rates
U.S., 1977 = 100, Rank Based on 1984 Values

Country	Index
United Kingdom	172
Canada	169
U.S.	147
Italy	140
Sweden	135
West Germany	120
France	113
Japan	87

Source: Daly and MacCharles

Table D5

Indices of Unit Labour Costs, Manufacturing Sector

Selected Countries, Historical

After Adjustment for Exchange Rates

U.S. 1977 = 100, Rank Based on 1984 Values

Country	1960	1980
United Kingdom	53	257
Canada	75	148
U.S.	61	131
Italy	40	172
Sweden	52	217
West Germany	31	174
France	46	169
Japan	27	99

Source: Daly and MacCharles

Table D6

Indices of Output Per Hour, Manufacturing Sector Selected Countries for 1984 United States 1977 = 100, Rank Based on 1984 Values

Country	Index
United States	116
West Germany	107
Japan	101
Sweden	91
France	87
Canada	84
Italy	74
United Kingdom	46

Source: Daly and MacCharles

Table D7

Indices of Output Per Hour, Manufacturing Sector
Selected Countries Historical
United States 1977 = 100, Rank Based on 1984 Values

Country	1960	1970	1980
United States	60	79	102
West Germany	34	60	93
Japan	13	37	78
Sweden	29	55	76
France	23	44	71
Canada	38	57	76
Italy	20	40	64
United Kingdom	20	28	37

Source: Daly and MacCharles

Table D8

Output Per Hour in Total Manufacturing United States, Canada and Japan 1955-1984, U.S. 1977 = 100

Year	U.S.	Canada	Japan
1955	56.4	31.7	9.1
1956	56.0	33.0	9.6
1957	57.2	33.2	10.5
1958	56.9	34.4	9.9
1959	59.6	36.3	11.5
1960	60.0	37.5	13.2
1961	61.6	39.6	15.0
1962	64.3	41.6	15.7
1963	68.9	43.2	16.9
1964	72.3	45.1	19.1
1965	74.6	47.8	19.9
1966	75.4	48.4	22.0
1967	75.3	49.9	25.2
1968	78.0	53.4	28.4
1969	79.3	56.5	32.8
1970	79.2	57.3	37.0
1971	84.0	61.4	39.3
1972	88.2	64.1	43.8
1973	93.0	68.1	48.3
1974	90.8	69.7	49.4
1975	93.4	67.9	51.4
1976	97.6	71.8	56.2
1977	100.0	74.6	60.2
1978	100.9	75.7	65.0
1979	101.6	77.8	70.7
1980	101.7	76.0	77.4
1981	104.9	77.6	81.7
1982	107.1	75.4	87.5
1983	111.6	80.3	92.0
1984	115.6	83.5	100.8

Table D9

Output per Hour, Manufacturing
Selected Countries, Selected Years
1950-1984, U.S. 1977 = 100

Year	U.S.	Canada	Japan	Belgium	France	West Germany	Italy	Sweden	U.K.
1950	49.4	25.8	5.4	N/A	14.4	17.0	11.5	20.4	16.4
1955	56.4	31.7	9.1	N/A	17.9	24.3	16.1	22.3	17.7
1960	60.0	37.5	13.2	21.1	23.2	34.9	20.1	28.5	20.1
1965	74.6	47.8	19.9	26.1	31.3	47.2	29.1	39.4	23.9
1970	79.2	57.3	37.0	38.6	44.3	62.1	40.1	54.4	29.0
1973	93.0	68.1	48.3	50.4	52.5	73.1	50.1	63.9	34.8
1975	93.4	67.9	51.4	55.4	56.5	87.7	50.2	67.6	35.3
1977	100.0	74.6	60.2	64.4	64.0	87.6	55.1	67.4	37.3
1980	101.7	76.0	77.4	77.1	71.9	95.0	64.4	76.0	37.3
1984	115.6	83.5	100.8	88.2	86.5	107.2	74.0	91.0	45.9

Source: Daly and MacCharles

Table D10

Total Compensation Per Hour, Manufacturing Selected Countries, Selected Years 1950-1984, U.S. 1977 = 100

Year	U.S.	Canada	Japan	Belgium	France	West Germany	Italy	Sweden	U.K.
1950	21.5	13.6	1.4	N/A	5.6	4.5	4.2	6.8	5.5
1955	28.8	21.4	2.5	N/A	9.9	6.6	6.0	10.8	7.8
1960	36.7	28.2	3.5	10.9	10.6	10.9	8.0	14.9	10.5
1965	42.8	30.2	6.6	17.0	16.6	18.3	14.6	24.2	14.4
1970	57.6	45.5	13.5	27.3	22.7	31.7	24.7	38.8	18.7
1973	69.0	59.6	29.2	54.1	40.4	61.5	44.6	65.1	27.8
1975	85.5	75.5	40.9	84.3	61.5	83.2	63.8	97.5	42.1
1977	100.0	94.9	53.0	109.2	70.0	103.7	67.2	117.0	44.0
1980	132.7	112.6	76.2	174.5	120.8	165.7	111.1	165.1	95.5
1984	169.4	141.2	87.3	126.2	97.5	128.7	103.4	123.1	78.6

Source: Daly and MacCharles

Table D11

Real Compensation Per Hour, Manufacturing Selected Countries, Selected Years 1950-1984, U.S. 1973 = 100

Year	U.S.	Canada	Japan	Belgium	France	West Germany	Italy	Sweden	U.K.
1950	57.4	41.3	9.8	N/A	18.0	14.4	17.8	29.2	24.6
1955	69.3	51.9	12.7	N/A	24.3	19.6	20.7	35.3	26.8
1960	79.7	60.9	16.1	33.7	27.3	29.2	23.8	40.9	31.5
1965	87.5	67.0	27.3	46.3	35.8	40.9	34.2	55.7	36.4
1970	95.4	79.9	34.7	62.2	46.2	57.9	50.7	71.5	44.5
1973	100.0	87.7	45.7	82.2	54.8	68.8	69.3	80.8	50.4
1975	102.2	94.4	51.0	95.3	63.3	76.1	79.6	95.7	58.5
1977	106.3	103.9	50.4	103.1	68.8	83.1	81.4	99.8	57.3
1980	103.7	103.6	52.5	115.4	74.1	92.7	82.7	101.5	64.2
1984	105.0	104.1	56.3	116.0	82.6	95.3	90.0	100.1	69.0

: Daly and MacCharles

Table D12

Unit Labour Costs, Manufacturing Selected Countries, Selected Years 1950-1984, U.S. 1977 = 100

Year	U.S.	Canada	Japan	Belgium	France	West Germany	Italy	Sweden	U.K.
1950	43.4	52.8	26.8	N/A	39.1	25.9	36.6	33.2	33.7
1955	51.0	67.7	28.3	N/A	55.0	27.2	37.5	47.9	44.6
1960	61.1	75.0	26.6	51.6	45.6	31.1	39.7	52.3	52.7
1965	57.5	64.6	33.0	65.3	52.9	38.7	50.3	61.5	60.8
1970	72.7	78.5	36.4	70.9	51.2	51.1	61.7	71.3	64.7
1973	74.2	87.5	60.5	107.2	77.0	83.9	89.2	101.9	80.5
1975	91.5	114.2	79.7	152.3	108.8	105.4	127.2	144.4	119.8
1977	100.0	127.2	88.2	169.6	109.4	118.2	122.0	173.6	118.5
1980	130.5	148.1	98.2	226.6	167.8	174.3	172.5	217.5	257.4
1984	146.5	169.2	86.8	143.1	112.7	119.9	139.7	135.4	172.3

Source: Daly and MacCharles

TABLE D13
CANADA-UNITED STATES SUMMARY FINANCIAL MEASURES FOR SELECTED INDUSTRIES 1985 *

Industry	Employment	Debt/Equity	Return on Equity		Profit Margin		Effective Tax Rate
			Pre-Tax	After-Tax	Pre-Tax	After-Tax	
	(000s)	(%)	(%)		(%)		
PAPER & ALLIED PRODUCTS							
Canada	115.5	82.4	9.1	6.1	4.6	3.0	20.2
U.S.	682	49.9	16.5	10.4	6.8	4.3	36.8
CHEMICAL PRODUCTS							
Canada	90.5	80.4	18.9	10.6	7.1	3.9	39.1
U.S.	1052	34.3	17.4	12.0	8.4	5.9	33.9
PRIMARY METALS							
Canada	102.8	54.5	5.7	4.1	3.7	2.7	32.9
U.S.	832	69.2	-6.3	-7.8	-2.2	-2.7	27.8
METAL FABRICATING							
Canada	131.5	61.4	17.1	11.9	8.1	5.2	31.8
U.S.	1480	45.1	18.1	11.3	5.6	3.5	36.8
MACHINERY & EQPMT							
Canada	81.4	68.4	8.4	-5.5	2.8	-1.7	35.7
U.S.	2220	28.2	12.2	8.7	6.4	4.6	36.8
ELECTRICAL PRODUCTS							
Canada	110.2	29.3	13.8	9.8	6.7	4.5	27.2
U.S.	2243	24.1	15.5	9.7	6.2	3.9	38.3
TRANSPORTATION EQUIPMENT							
Canada	179.7	24.4	47.6	29.0	7.0	4.4	27.5
U.S.	1969	24.3	26.5	16.6	6.9	4.3	41.5

Industry	Employment	Debt/Equity	Return on Equity		Profit Margin		Effective Tax Rate
			Pre-Tax	After-Tax	Pre-Tax	After-Tax	
(Continued)	(000s)	(%)	(%)		(%)		
TEXTILES							
Canada	60.9	62.9	10.6	-3.3	3.6	-1.1	40.8
U.S.	706	47.2	13.5	7.4	4.1	2.2	39.8
PRINTING & PUBLSH							
Canada	NA	57.7	23.2	15.8	10.7	7.2	34.7
U.S.	1407	41.2	31.2	18.7	11.0	6.6	34.7
FOOD INDUSTRY							
Canada	210.3	77.4	17.8	11.6	3.5	2.2	33.7
U.S.	1638	53.0	19.8	12.5	4.9	3.1	35.5
PETROLEUM & COAL							
Canada	21.7	36.4	28.1	12.3	13.5	5.8	35.3
U.S.	183	47.4	16.0	11.8	8.2	6.0	25.8

* Effective taxes are calculated as the ratio of the current provision for corporation and other income taxes / pre-tax income

Source: Nuala Beck and Associates

APPENDIX E

ONTARIO'S TRADE PERFORMANCE WITH THE UNITED STATES

APPENDIX E

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TABLE E1
ONTARIO MANUFACTURING INDUSTRIES
TRADE PERFORMANCE WITH THE U.S., 1980-1985

SIC NAME OF INDUSTRY	EXPORTS 1985	EXPORTS % CHANGE 1980-85 [1]	IMPORTS 1985	IMPORTS % CHANGE 1980-85	BALANCE OF TRADE ABSOLUTE BALANCE	BALANCE OF TRADE NORMALIZED BALANCE [2]	BALANCE OF TRADE CHANGE IN NORM. BALANCE 1980-1985
	($000)		($000)		($000)	(%)	(%)
101 MEAT & POULTRY PRODUCTS	151,193	7.1	187,007	10.1	(35,814)	-10.6	-4.6
102 FISH PRODUCTS	35,839	7.5	36,452	2.6	(613)	-0.8	11.9
103 FRUIT & VEGETABLE PROCESSING	37,214	18.8	156,357	6.8	(119,142)	-61.5	12.7
104 DAIRY PRODUCTS	6,481	24.4	10,068	12.4	(3,586)	-21.7	22.0
105 FLOUR & BREAKFAST CEREAL PRODUCTS	25,216	0.5	40,951	17.6	(15,733)	-23.8	-32.7
106 FEED	24,680	12.1	34,188	13.1	(9,509)	-16.2	-6.5
107 BAKERY PRODUCTS	87,501	16.7	21,614	12.2	65,887	60.4	6.6
108 MISC. FOODS	257,611	41.1	377,763	8.2	(120,152)	-18.9	50.2
109 BEVERAGES	339,109	5.6	16,523	16.9	322,586	90.7	-2.9
151 LEAF TOBACCO PROCESSORS	31,357	24.0	3,151	81.6	28,206	81.7	12.6
153 TOBACCO PRODUCTS	4,523	14.2	-	-	-	-	-
162 RUBBER PRODUCTS	407,993	25.0	436,329	16.7	(28,335)	-3.4	19.2
165 PLASTIC FABRICATING (NES)	231,040	32.2	365,775	15.5	(134,735)	-22.6	29.4
172 LEATHER TANNERIES	26,517	3.7	15,318	-3.2	11,200	26.8	18.5
174 SHOES	18,355	4.6	14,862	4.6	3,493	10.5	-4.7
175 LEATHER GLOVES	99	95.5	226	54.5	(126)	-38.8	19.3
179 LUGGAGE,HANDBAG & SMALL LEATH.GDS.	13,728	41.3	13,153	5.2	575	2.1	62.0
181 COTTON YARN & CLOTH	2,981	12.6	45,009	-0.0	(42,029)	-87.6	5.3
182 WOOL YARN & CLOTH	2,739	21.5	8,813	18.5	(6,074)	-52.6	-2.8
183 MAN-MADE FIBRE, YARN & CLOTH	79,826	33.4	214,319	7.2	(134,493)	-45.7	26.0
184 CORDAGE & TWINE	3,720	34.7	5,097	5.5	(1,378)	-15.6	44.2
185 FELT & FIBRE PROCESSING	6,664	33.1	10,265	12.9	(3,602)	-21.3	-19.6
186 CARPETS, MATS & RUGS	12,157	20.1	30,642	12.4	(18,485)	-43.2	14.4
187 CANVAS PRODUCTS, COTTON & JUTE BAGS	1,259	62.8	1,029	-9.3	231	10.1	94.4
188 AUTO. FABRIC ACCESSORIES	-	-	-	-	-	-	-
189 MISC. TEXTILES	30,826	22.6	139,610	7.3	(108,783)	-63.8	13.1
231 HOSIERY	1,372	72.2	5,820	-6.7	(4,448)	-61.8	27.8
239 KNITTING	6,825	31.8	61,766	7.3	(54,941)	-80.1	10.7
243 MEN'S CLOTHING	12,186	26.9	8,015	-2.2	4,171	20.6	53.6
244 WOMEN'S CLOTHING	19,145	30.8	9,119	9.7	10,026	35.5	44.7
245 CHILDREN'S CLOTHING	2,135	22.6	3,547	18.1	(1,412)	-24.9	-17.0
246 FUR GOODS	26,113	35.5	601	51.7	25,512	95.5	6.3
248 FOUNDATION GARMENTS	50	..	637	-9.1	(587)	-85.4	11.0
249 MISC. CLOTHING	25,005	51.6	8,253	17.4	16,751	50.4	13.0
251 SAWMILLS, PLANING AND SHINGLE MILLS	865,936	23.5	130,426	10.2	735,510	73.8	20.2
252 VENEER AND PLYWOOD MILLS	58,724	12.5	22,831	14.3	35,893	44.0	5.3
254 SASH, DOOR & OTHER MILLWORK PLANTS	40,006	30.0	43,950	27.0	(3,944)	-4.7	16.7
256 WOODEN BOX FACTORIES	2,795	5.6	6,357	12.7	(3,562)	-38.9	-11.4
258 COFFIN AND CASKET INDUSTRY	-	-	6,930	12.6	-		-
259 MISCELLANEOUS WOOD INDUSTRIES	143,384	16.9	23,801	3.9	119,583	71.5	16.9

TABLE E1 - CONTINUED

SIC	NAME OF INDUSTRY	EXPORTS 1985 ($000)	EXPORTS % CHANGE 1980-85[1]	IMPORTS 1985 ($000)	IMPORTS % CHANGE 1980-85	BALANCE OF TRADE ABSOLUTE BALANCE ($000)	BALANCE OF TRADE NORMALIZED BALANCE[2] (%)	BALANCE OF TRADE CHANGE IN NORM. BALANCE 1980-1985 (%)
261	HOUSEHOLD FURNITURE MANUFACTURERS	104,407	39.4	68,108	9.0	36,299	21.0	63.7
264	OFFICE FURNITURE MANUFACTURERS	221,638	21.4	21,932	7.8	199,705	82.0	14.1
266	MISC. FURNITURE AND FIXTURE MFRS.	134,761	33.8	44,458	24.0	90,303	50.4	19.0
268	ELECTRIC LAMP AND SHADE MFRS.	-	-	893	5.5	-	-	-
271	PULP AND PAPER MILLS	2,047,627	6.9	328,520	13.7	1,719,107	72.3	-6.1
272	ASPHALT ROOFING MANUFACTURERS	56,405	10.1	1,473	46.6	54,932	94.9	-1.7
273	PAPER BOX AND BAG MANUFACTURERS	24,105	49.3	55,241	17.7	(31,135)	-39.2	43.4
274	MISCELLANEOUS PAPER CONVERTERS	106,581	16.1	167,853	13.6	(61,272)	-22.3	5.9
286	COMMERCIAL PRINTING	77,798	22.1	191,551	8.2	(113,752)	-42.2	20.7
287	PLATEMAKING, TYPESETTING ETC. IND.	794	19.8	19,563	4.8	(18,769)	-92.2	-4.3
288	PUBLISHING ONLY	59,261	6.6	466,512	11.4	(407,250)	-77.5	-7.4
289	PUBLISHING AND PRINTING	109,093	43.0	264,977	11.6	(155,884)	-41.7	36.6
291	IRON AND STEEL MILLS	1,239,650	12.9	563,427	19.8	676,223	37.5	-2.8
292	STEEL PIPE AND TUBE MILLS	290,025	17.9	72,453	2.9	217,572	60.0	5.9
294	IRON FOUNDRIES	99,136	7.2	88,961	7.6	10,175	5.4	-1.5
295	SMELTING AND REFINING	552,486	-1.0	231,677	-1.2	320,809	40.9	6.1
296	ALUMINUM ROLLING, CASTING ETC.	210,204	30.8	458,841	11.0	(248,637)	-37.2	25.4
297	COPPER AND COPPER ALLOY ROLLING ETC.	69,223	14.9	54,831	13.7	14,393	11.6	0.6
298	METAL ROLLING, CASTING ETC. NES	79,651	-4.3	55,893	-2.2	23,758	17.5	-3.0
301	BOILER AND PLATE WORKS	23,597	12.0	26,454	-1.7	(2,857)	-5.7	20.1
302	FAB. STRUCTURAL METAL INDUSTRY	-	-5.3	1,069	-16.1	-	-	-47.0
303	ORNAMENTAL & ARCHITECTURAL METAL	99,292	-	17,244	268.7	82,048	70.4	-
304	METAL STAMPING, PRESSING AND COATING	52,359	24.1	131,648	12.9	(79,290)	-43.1	12.7
305	WIRE AND WIRE PRODUCTS MFRS.	216,790	14.8	325,755	13.2	(108,965)	-20.1	3.1
306	HARDWARE, TOOL AND CUTLERY MFRS.	341,310	18.1	321,841	10.0	19,469	2.9	19.4
307	HEATING EQUIPTMENT MFRS.	64,772	35.4	37,307	17.9	27,465	26.9	33.4
308	MACHINE SHOPS	-	-	-	-	-	-	-
309	MISC. METAL FABRICATING INDS.	336,781	36.7	481,613	12.6	(144,833)	-17.7	31.4
311	AGRICULTURAL IMPLEMENT INDUSTRY	352,440	-8.7	504,863	0.2	(152,423)	-17.8	-17.7
315	MISC. MACHINERY & EQUIPTMENT MFRS.	1,696,197	15.1	3,426,325	6.8	(1,730,128)	-33.8	17.3
316	COMMERCIAL REFRIG. AIR COND. MFRS.	75,844	21.6	221,930	11.2	(146,086)	-49.1	16.2
318	OFFICE AND STORE MACHINERY MFRS.	1,261,356	20.5	3,175,665	16.4	(1,914,309)	-43.1	9.5
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	863,863	13.0	580,248	10.9	283,615	19.6	18.1
323	MOTOR VEHICLE MANUFACTURERS	19,754,073	29.9	9,630,184	25.4	10,123,889	34.5	13.4
324	TRUCK BODY AND TRAILER MFRS.	77,859	22.6	78,525	36.0	(666)	-0.4	-7.3
325	MOTOR VEHICLE PARTS AND ACCESSORIES	10,548,699	29.0	15,729,855	19.8	(5,181,156)	-19.7	16.0
326	RAILROAD ROLLING STOCK INDUSTRY	32,508	-5.7	137,424	12.7	(104,915)	-61.7	-69.5
327	SHIPBUILDING AND REPAIR	8,635	122.9	3,235	10.6	5,399	45.5	55.1
328	BOATBUILDING AND REPAIR	100,023	32.1	54,919	24.1	45,104	29.1	18.9
329	MISCELLANEOUS VEHICLE MANUFACTURERS	85,760	12.9	34,748	4.8	51,011	42.3	7.2

TABLE E1 - CONTINUED

SIC	NAME OF INDUSTRY	EXPORTS 1985 ($000)	EXPORTS % CHANGE 1980-85[1]	IMPORTS 1985 ($000)	IMPORTS % CHANGE 1980-85	BALANCE OF TRADE ABSOLUTE BALANCE ($000)	BALANCE OF TRADE NORMALIZED BALANCE[2] (%)	BALANCE OF TRADE CHANGE IN NORM. BALANCE 1980-1985 (%)
331	MFRS OF SMALL ELECTRICAL APPLIANCES	50,305	18.9	261,105	7.4	(210,799)	-67.7	12.1
332	MANUFACTURERS OF MAJOR APPLIANCES	61,536	15.3	130,558	5.3	(69,022)	-35.9	20.0
333	MANUFACTURERS OF LIGHTING FIXTURES	13,126	35.1	145,366	15.5	(132,240)	-83.4	8.6
334	MFRS. OF HOUSEHOLD RADIO AND TV	191,575	29.8	282,698	13.7	(91,123)	-19.2	29.3
335	COMMUNICATIONS EQUIPTMENT MFRS.	891,821	20.6	1,241,143	12.0	(349,321)	-16.4	17.2
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	245,908	22.3	477,532	8.9	(231,623)	-32.0	22.6
338	MFRS OF ELECTRIC WIRE AND CABLE	77,990	21.0	86,533	16.7	(8,543)	-5.2	6.4
339	MFRS OF MISC. ELECTRICAL PRODUCTS	162,402	12.6	429,260	12.6	(266,859)	-45.1	-0.0
351	CLAY PRODUCTS MANUFACTURERS	1,159	25.1	33,450	13.3	(32,291)	-93.3	-0.0
352	CEMENT MANUFACTURERS	90,451	11.0	10,861	6.8	79,590	78.6	6.0
353	STONE PRODUCTS MANUFACTURERS	4,408	53.4	4,383	36.8	26	0.3	48.5
354	CONCRETE PRODUCTS MANUFACTURERS	23,246	35.2	3,215	35.6	20,030	75.7	2.0
355	READY-MIX CONCRETE MANUFACTURERS	-	-	-	-	-	-	-
356	GLASS AND GLASS PRODUCTS MFRS.	45,240	18.3	230,967	6.8	(185,727)	-67.2	10.3
357	ABRASIVES MANUFACTURERS	118,109	10.2	76,212	6.6	41,897	21.6	7.9
358	LIME MANUFACTURERS	5,904	-7.0	1,199	-8.9	4,705	66.2	-3.8
359	MISC. NON-METALLIC MINERAL PRODS.	89,085	39.1	179,686	9.1	(90,601)	-33.7	37.5
365	PETROLEUM REFINERIES	684,378	17.0	282,281	30.5	402,098	41.6	-11.0
369	MISC. PETROLEUM & COAL PRODS. INDS.	190,155	31.6	69,260	11.5	120,894	46.6	11.0
372	MANUFACTURERS OF MIXED FERTILIZERS	19,692	12.7	14,677	-2.3	5,015	14.6	34.9
373	MFRS OF PLASTICS & SYNTHETIC RESINS	395,976	14.0	852,722	13.7	(456,746)	-36.6	-0.1
374	MFRS PHARMACEUTICALS AND MEDICINES	28,616	24.1	162,233	10.2	(133,618)	-70.0	12.0
375	PAINT AND VARNISH MANUFACTURERS	14,405	25.8	131,424	22.0	(117,019)	-80.2	2.7
376	MFRS OF SOAP AND CLEANING COMPOUNDS	42,513	67.8	2,105	-4.8	40,408	90.6	52.0
377	MFRS OF TOILET PREPARATIONS	24,937	33.7	66,505	-0.6	(41,568)	-45.5	38.3
378	MFRS OF INDUSTRIAL CHEMICALS	1,137,607	9.7	1,072,993	9.0	64,614	2.9	0.7
379	MISCELLANEOUS CHEMICAL INDUSTRIES	109,995	10.6	793,750	9.7	(683,755)	-75.7	-0.8
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	665,191	14.1	1,423,547	9.8	(758,356)	-36.3	7.9
392	JEWELLERY AND SILVERWARE INDUSTRY	78,320	63.0	75,159	14.7	3,161	2.1	57.8
393	SPORTING GOODS AND TOY INDUSTRIES	24,290	9.7	144,220	2.3	(119,929)	-71.2	-20.7
397	SIGNS AND DISPLAYS INDUSTRY	22,699	52.9	14,940	19.9	7,758	20.6	58.1
399	MISC. MANUFACTURING IND. NES	144,075	17.2	545,813	10.6	(401,738)	-58.2	9.1
	TOTAL ALL INDUSTRIES	50,172,423	20.7	49,840,390	14.4	332,033	0.3	14.3

1. AVERAGE ANNUAL PERCENTAGE CHANGE
2. DEFINED AS: ((EXPORTS-IMPORTS)/(EXPORTS+IMPORTS))

TABLE E2
ONTARIO MANUFACTURING INDUSTRIES
TRADE WITH THE U.S. AS A PERCENTAGE OF TOTAL TRADE, 1980-1985
(RANKED BY PERCENTAGE OF TOTAL TRADE, 1985)

SIC	NAME OF INDUSTRY	PERCENTAGE OF TOTAL TRADE	PERCENTAGE OF EXPORTS			PERCENTAGE OF IMPORTS		
		1985	1985	1980	ABSOLUTE CHANGE	1985	1980	ABSOLUTE CHANGE
358	LIME MANUFACTURERS	100.0	100.0	100.0	0.0	100.0	88.4	11.6
352	CEMENT MANUFACTURERS	99.8	99.9	99.5	0.4	99.1	98.0	1.1
354	CONCRETE PRODUCTS MANUFACTURERS	99.6	99.8	96.2	3.6	97.7	96.2	1.5
323	MOTOR VEHICLE MANUFACTURERS	99.5	99.5	90.3	9.2	99.4	99.8	-0.3
272	ASPHALT ROOFING MANUFACTURERS	98.9	99.3	98.0	1.3	85.4	73.8	11.6
324	TRUCK BODY AND TRAILER MFRS.	98.8	98.7	73.7	25.0	98.8	99.9	-1.0
365	PETROLEUM REFINERIES	98.6	99.5	98.9	0.6	96.6	92.7	3.9
289	PUBLISHING AND PRINTING	98.3	99.8	98.9	0.9	97.7	95.4	2.3
251	SAWMILLS, PLANING AND SHINGLE MILLS	96.9	96.9	91.1	5.7	97.1	93.2	3.9
271	PULP AND PAPER MILLS	95.9	98.3	93.1	5.2	83.3	93.1	-9.8
	AVERAGE FOR TOP 10	98.6	99.2	94.0	5.2	95.5	93.0	2.5
273	PAPER BOX AND BAG MANUFACTURERS	95.9	96.5	55.2	41.3	95.6	96.2	-0.6
369	MISC. PETROLEUM & COAL PRODS. INDS.	95.3	97.0	82.9	14.1	90.8	74.9	15.9
372	MANUFACTURERS OF MIXED FERTILIZERS	94.6	93.2	93.5	-0.2	96.6	98.1	-1.6
325	MOTOR VEHICLE PARTS AND ACCESSORIES	94.6	96.5	88.3	8.2	93.4	97.1	-3.8
375	PAINT AND VARNISH MANUFACTURERS	94.4	86.4	74.4	12.0	95.4	94.3	1.1
264	OFFICE FURNITURE MANUFACTURERS	94.0	95.9	96.0	-0.1	78.7	87.7	-9.0
359	MISC. NON-METALLIC MINERAL PRODS.	92.9	95.6	81.1	14.5	91.5	94.1	-2.5
296	ALUMINUM ROLLING, CASTING ETC.	90.6	97.3	75.8	21.5	87.8	96.7	-8.8
254	SASH, DOOR & OTHER MILLWORK PLANTS	90.5	87.8	54.9	32.9	93.2	91.2	1.9
327	SHIPBUILDING AND REPAIR	90.2	97.3	80.2	17.2	75.4	72.8	2.6
292	STEEL PIPE AND TUBE MILLS	89.7	97.6	97.7	-0.1	67.7	77.5	-9.8
288	PUBLISHING ONLY	89.7	88.9	91.8	-2.9	89.8	90.2	-0.4
294	IRON FOUNDRIES	89.1	99.6	89.9	9.7	79.7	79.8	-0.0
307	HEATING EQUIPMENT MFRS.	89.1	90.5	75.7	14.7	86.8	95.3	-8.5
328	BOATBUILDING AND REPAIR	89.0	96.2	79.2	17.1	78.2	78.3	-0.0
	AVERAGE FOR TOP 25	94.8	96.4	86.6	9.9	90.4	90.3	0.1
165	PLASTIC FABRICATING (NES)	88.8	92.9	79.6	13.3	86.4	88.6	-2.2
311	AGRICULTURAL IMPLEMENT INDUSTRY	88.7	91.6	90.9	0.7	86.8	91.5	-4.7
259	MISCELLANEOUS WOOD INDUSTRIES	88.4	95.0	87.2	7.8	62.5	65.9	-3.4
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	87.7	87.0	50.5	36.5	88.1	87.1	1.0
357	ABRASIVES MANUFACTURERS	87.5	92.3	88.6	3.7	80.9	87.2	-6.2
379	MISCELLANEOUS CHEMICAL INDUSTRIES	86.7	71.1	64.5	6.6	89.4	87.9	1.5
286	COMMERCIAL PRINTING	86.6	88.0	80.3	7.7	86.1	88.6	-2.5
397	SIGNS AND DISPLAYS INDUSTRY	86.6	86.0	60.1	25.9	87.5	76.9	10.6
338	MFRS OF ELECTRIC WIRE AND CABLE	86.5	76.7	52.3	24.5	97.8	97.1	0.7

TABLE E2 - CONTINUED

SIC	NAME OF INDUSTRY	PERCENTAGE OF TOTAL TRADE	PERCENTAGE OF EXPORTS			PERCENTAGE OF IMPORTS		
		1985	1985	1980	ABSOLUTE CHANGE	1985	1980	ABSOLUTE CHANGE
305	WIRE AND WIRE PRODUCTS MFRS.	86.4	94.9	91.0	3.8	81.5	82.9	-1.4
162	RUBBER PRODUCTS	86.0	91.5	80.9	10.6	81.5	73.9	7.6
316	COMMERCIAL REFRIG. AIR COND. MFRS.	85.3	85.2	66.3	18.9	85.4	87.8	-2.5
298	METAL ROLLING, CASTING ETC. NES	85.0	82.9	60.0	22.9	88.1	91.2	-3.1
318	OFFICE AND STORE MACHINERY MFRS.	84.5	82.6	70.9	11.7	85.3	90.1	-4.8
297	COPPER AND COPPER ALLOY ROLLING ETC.	84.4	93.8	69.7	24.1	74.8	76.5	-1.6
333	MANUFACTURERS OF LIGHTING FIXTURES	84.4	82.7	43.5	39.2	84.5	87.5	-3.0
321	AIRCRAFT AND AIRCRAFT PARTS MFRS.	83.9	81.8	72.0	9.8	87.1	94.6	-7.5
309	MISC. METAL FABRICATING INDS.	83.3	87.4	65.0	22.5	80.6	76.6	4.0
291	IRON AND STEEL MILLS	83.1	93.5	70.6	22.9	66.9	73.7	-6.8
256	WOODEN BOX FACTORIES	82.4	74.0	94.5	-20.5	86.7	80.4	6.3
326	RAILROAD ROLLING STOCK INDUSTRY	82.3	54.6	68.0	-13.5	93.5	93.2	0.3
378	MFRS OF INDUSTRIAL CHEMICALS	82.0	85.4	60.7	24.8	78.7	80.7	-2.0
106	FEED	81.2	74.2	34.9	39.3	87.1	95.9	-8.8
332	MANUFACTURERS OF MAJOR APPLIANCES	80.9	83.4	53.9	29.5	79.8	87.3	-7.6
376	MFRS OF SOAP AND CLEANING COMPOUNDS	80.7	80.3	44.1	36.1	90.1	100.0	-10.0
266	MISC. FURNITURE AND FIXTURE MFRS.	80.5	93.7	81.7	12.0	56.4	69.1	-12.7
339	MFRS OF MISC. ELECTRICAL PRODUCTS	79.7	83.5	68.2	15.4	78.4	86.9	-8.5
105	FLOUR & BREAKFAST CEREAL PRODUCTS	79.6	62.1	49.7	12.4	96.4	96.8	-0.4
252	VENEER AND PLYWOOD MILLS	79.5	87.9	69.4	18.5	63.8	74.4	-10.5
373	MFRS OF PLASTICS & SYNTHETIC RESINS	79.4	63.4	56.0	7.4	89.9	93.5	-3.6
274	MISCELLANEOUS PAPER CONVERTERS	79.3	88.8	76.1	12.7	74.2	80.4	-6.2
246	FUR GOODS	78.9	88.5	33.0	55.6	13.8	25.3	-11.5
107	BAKERY PRODUCTS	78.2	97.6	93.4	4.2	43.4	51.9	-8.6
315	MISC. MACHINERY & EQUIPTMENT MFRS.	78.2	82.7	65.8	16.9	76.1	81.1	-5.0
356	GLASS AND GLASS PRODUCTS MFRS.	78.0	88.7	53.6	35.1	76.3	83.9	-7.6
306	HARDWARE, TOOL AND CUTLERY MFRS.	77.5	90.1	73.2	16.8	67.5	67.0	0.5
287	PLATEMAKING, TYPESETTING ETC. IND.	77.2	71.6	73.6	-2.0	77.5	84.2	-6.8
301	BOILER AND PLATE WORKS	76.9	74.4	38.4	36.0	79.3	81.5	-2.3
304	METAL STAMPING, PRESSING AND COATING	73.0	92.8	67.5	25.3	67.3	67.7	-0.5
399	MISC. MANUFACTURING IND. NES	72.9	84.1	61.0	23.1	70.4	76.8	-6.3
391	SCIENTIFIC AND PROFESSIONAL EQUIP.	72.5	77.0	64.4	12.7	70.6	68.3	2.3
109	BEVERAGES	71.0	96.8	97.8	-1.0	11.0	8.2	2.8
335	COMMUNICATIONS EQUIPTMENT MFRS.	70.7	67.8	61.5	6.3	72.9	80.6	-7.7
261	HOUSEHOLD FURNITURE MANUFACTURERS	70.6	98.1	88.1	10.0	49.4	60.4	-11.0
377	MFRS OF TOILET PREPARATIONS	68.2	85.3	67.2	18.1	63.5	86.1	-22.6
101	MEAT & POULTRY PRODUCTS	65.6	61.0	51.4	9.6	69.9	68.2	1.7
189	MISC. TEXTILES	64.2	74.5	60.5	14.0	62.3	72.8	-10.5
108	MISC. FOODS	62.2	79.0	31.0	48.0	54.4	42.8	11.6
184	CORDAGE & TWINE	61.0	96.3	79.2	17.1	48.1	42.7	5.4
331	MFRS OF SMALL ELECTRICAL APPLIANCES	60.1	88.7	67.6	21.1	56.6	74.1	-17.5
183	MAN-MADE FIBRE, YARN & CLOTH	59.1	57.9	29.1	28.7	59.6	72.3	-12.7
181	COTTON YARN & CLOTH	57.9	81.2	71.7	9.5	56.8	71.9	-15.2
295	SMELTING AND REFINING	54.9	48.9	61.3	-12.5	77.9	83.2	-5.3
102	FISH PRODUCTS	52.7	69.3	62.0	7.3	42.6	60.3	-17.7
103	FRUIT & VEGETABLE PROCESSING	52.0	64.4	39.1	25.3	49.7	59.7	-10.0

TABLE E2 - CONTINUED

SIC	NAME OF INDUSTRY	PERCENTAGE OF TOTAL TRADE	PERCENTAGE OF EXPORTS			PERCENTAGE OF IMPORTS		
		1985	1985	1980	ABSOLUTE CHANGE	1985	1980	ABSOLUTE CHANGE
185	FELT & FIBRE PROCESSING	48.3	52.5	40.0	12.6	45.9	31.9	14.0
249	MISC. CLOTHING	48.0	86.9	65.0	22.0	20.4	20.8	-0.5
186	CARPETS, MATS & RUGS	47.7	56.3	19.0	37.3	44.9	49.7	-4.8
231	HOSIERY	47.2	86.9	77.1	9.8	42.6	74.8	-32.2
329	MISCELLANEOUS VEHICLE MANUFACTURERS	47.1	44.4	60.9	-16.5	55.5	65.3	-9.8
374	MFRS PHARMACEUTICALS AND MEDICINES	46.9	37.8	26.5	11.4	48.9	53.6	-4.7
353	STONE PRODUCTS MANUFACTURERS	45.7	98.2	77.5	20.7	29.7	37.0	-7.2
392	JEWELLERY AND SILVERWARE INDUSTRY	44.3	84.3	28.4	55.9	29.6	34.7	-5.1
172	LEATHER TANNERIES	44.0	84.7	83.2	1.5	24.0	51.8	-27.8
334	MFRS. OF HOUSEHOLD RADIO AND TV	43.2	98.4	78.5	19.9	31.3	42.5	-11.2
393	SPORTING GOODS AND TOY INDUSTRIES	39.1	48.0	58.8	-10.8	37.9	50.2	-12.3
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	35.8	95.9	71.7	24.2	21.6	29.5	-7.9
151	LEAF TOBACCO PROCESSORS	34.2	33.3	17.4	15.9	46.3	33.2	13.1
239	KNITTING	30.5	92.2	50.2	42.0	28.4	43.0	-14.6
104	DAIRY PRODUCTS	25.4	47.7	7.7	40.0	19.5	15.7	3.8
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	25.4	90.1	48.0	42.1	13.5	44.6	-31.1
248	FOUNDATION GARMENTS	25.2	16.7	18.8	-2.2	26.3	69.7	-43.4
245	CHILDREN'S CLOTHING	22.5	83.2	71.6	11.5	15.6	16.9	-1.3
351	CLAY PRODUCTS MANUFACTURERS	21.2	91.8	93.4	-1.6	20.7	13.2	7.5
182	WOOL YARN & CLOTH	20.9	96.3	96.2	0.0	16.8	13.8	3.1
244	WOMEN'S CLOTHING	19.3	93.1	59.2	33.9	7.3	13.2	-5.9
243	MEN'S CLOTHING	16.5	92.8	28.8	64.0	7.3	25.4	-18.1
174	SHOES	12.9	92.5	70.0	22.5	6.2	9.3	-3.1
175	LEATHER GLOVES	5.0	59.0	14.5	44.5	3.6	1.5	2.0
302	FAB. STRUCTURAL METAL INDUSTRY	0.0	-	74.8	-	59.9	95.3	-35.5
303	ORNAMENTAL & ARCHITECTURAL METAL	-	90.9	-	-	85.8	92.2	-6.3
355	READY-MIX CONCRETE MANUFACTURERS	-	-	-	-	-	-	-
308	MACHINE SHOPS	-	-	-	-	-	-	-
268	ELECTRIC LAMP AND SHADE MFRS.	-	-	-	-	40.8	67.0	-26.2
258	COFFIN AND CASKET INDUSTRY	-	-	-	-	99.7	99.4	0.2
153	TOBACCO PRODUCTS	-	71.0	60.8	10.2	-	-	-
188	AUTO. FABRIC ACCESSORIES	-	-	-	-	-	-	-
	AVERAGE FOR ALL MANUFACTURES	87.4	92.1	78.3	13.8	83.1	84.0	-0.9

- UNAVAILABLE

TABLE E3
ONTARIO MANUFACTURING TRADE WITH U.S.
RANKING OF INDUSTRY SURPLUSES AND DEFICITS, 1985

ONTARIO TRADE BALANCE SURPLUSES WITH THE U.S.

SIC	NAME OF INDUSTRY	TRADE BALANCE ($000)
323	MOTOR VEHICLE MANUFACTURERS	10,123,889
271	PULP AND PAPER MILLS	1,719,107
251	SAWMILLS, PLANING AND SHINGLE MILLS	735,510
291	IRON AND STEEL MILLS	676,223
365	PETROLEUM REFINERIES	402,098
109	BEVERAGES	322,586
295	SMELTING AND REFINING	320,809
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	283,615
292	STEEL PIPE AND TUBE MILLS	217,572
264	OFFICE FURNITURE MANUFACTURERS	199,705
369	MISC. PETROLEUM & COAL PRODS. INDS.	120,894
259	MISCELLANEOUS WOOD INDUSTRIES	119,583
266	MISC. FURNITURE AND FIXTURE MFRS.	90,303
303	ORNAMENTAL & ARCHITECTURAL METAL	82,048
352	CEMENT MANUFACTURERS	79,590
107	BAKERY PRODUCTS	65,887
378	MFRS OF INDUSTRIAL CHEMICALS	64,614
272	ASPHALT ROOFING MANUFACTURERS	54,932
329	MISCELLANEOUS VEHICLE MANUFACTURERS	51,011
328	BOATBUILDING AND REPAIR	45,104
357	ABRASIVES MANUFACTURERS	41,897
376	MFRS OF SOAP AND CLEANING COMPOUNDS	40,408
261	HOUSEHOLD FURNITURE MANUFACTURERS	36,299
252	VENEER AND PLYWOOD MILLS	35,893
151	LEAF TOBACCO PROCESSORS	28,206
307	HEATING EQUIPTMENT MFRS.	27,465
246	FUR GOODS	25,512
298	METAL ROLLING, CASTING ETC. NES	23,758
354	CONCRETE PRODUCTS MANUFACTURERS	20,030
306	HARDWARE, TOOL AND CUTLERY MFRS.	19,469
249	MISC. CLOTHING	16,751
297	COPPER AND COPPER ALLOY ROLLING ETC.	14,393
172	LEATHER TANNERIES	11,200
294	IRON FOUNDRIES	10,175
244	WOMEN'S CLOTHING	10,026
397	SIGNS AND DISPLAYS INDUSTRY	7,758
327	SHIPBUILDING AND REPAIR	5,399
372	MANUFACTURERS OF MIXED FERTILIZERS	5,015
358	LIME MANUFACTURERS	4,705
243	MEN'S CLOTHING	4,171
174	SHOES	3,493
392	JEWELLERY AND SILVERWARE INDUSTRY	3,161
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	575
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	231
353	STONE PRODUCTS MANUFACTURERS	26
TOTAL ONTARIO TRADE BALANCE SURPLUSES WITH THE U.S.		16,171,095

TABLE E3 - CONTINUED

ONTARIO TRADE BALANCE DEFICITS WITH THE U.S.

SIC	NAME OF INDUSTRY	TRADE BALANCE ($000)
175	LEATHER GLOVES	(126)
248	FOUNDATION GARMENTS	(587)
102	FISH PRODUCTS	(613)
324	TRUCK BODY AND TRAILER MFRS.	(666)
184	CORDAGE & TWINE	(1,378)
245	CHILDREN'S CLOTHING	(1,412)
301	BOILER AND PLATE WORKS	(2,857)
256	WOODEN BOX FACTORIES	(3,562)
104	DAIRY PRODUCTS	(3,586)
185	FELT & FIBRE PROCESSING	(3,602)
254	SASH, DOOR & OTHER MILLWORK PLANTS	(3,944)
231	HOSIERY	(4,448)
182	WOOL YARN & CLOTH	(6,074)
338	MFRS OF ELECTRIC WIRE AND CABLE	(8,543)
106	FEED	(9,509)
105	FLOUR & BREAKFAST CEREAL PRODUCTS	(15,733)
186	CARPETS, MATS & RUGS	(18,485)
287	PLATEMAKING, TYPESETTING ETC. IND.	(18,769)
162	RUBBER PRODUCTS	(28,335)
273	PAPER BOX AND BAG MANUFACTURERS	(31,135)
351	CLAY PRODUCTS MANUFACTURERS	(32,291)
101	MEAT & POULTRY PRODUCTS	(35,814)
377	MFRS OF TOILET PREPARATIONS	(41,568)
181	COTTON YARN & CLOTH	(42,029)
239	KNITTING	(54,941)
274	MISCELLANEOUS PAPER CONVERTERS	(61,272)
332	MANUFACTURERS OF MAJOR APPLIANCES	(69,022)
304	METAL STAMPING, PRESSING AND COATING	(79,290)
359	MISC. NON-METALLIC MINERAL PRODS.	(90,601)
334	MFRS. OF HOUSEHOLD RADIO AND TV	(91,123)
326	RAILROAD ROLLING STOCK INDUSTRY	(104,915)
189	MISC. TEXTILES	(108,783)
305	WIRE AND WIRE PRODUCTS MFRS.	(108,965)
286	COMMERCIAL PRINTING	(113,752)
375	PAINT AND VARNISH MANUFACTURERS	(117,019)
103	FRUIT & VEGETABLE PROCESSING	(119,142)
393	SPORTING GOODS AND TOY INDUSTRIES	(119,929)
108	MISC. FOODS	(120,152)
333	MANUFACTURERS OF LIGHTING FIXTURES	(132,240)
374	MFRS PHARMACEUTICALS AND MEDICINES	(133,618)
183	MAN-MADE FIBRE, YARN & CLOTH	(134,493)
165	PLASTIC FABRICATING (NES)	(134,735)
309	MISC. METAL FABRICATING INDS.	(144,833)
316	COMMERCIAL REFRIG. AIR COND. MFRS.	(146,086)
311	AGRICULTURAL IMPLEMENT INDUSTRY	(152,423)
289	PUBLISHING AND PRINTING	(155,884)
356	GLASS AND GLASS PRODUCTS MFRS.	(185,727)

TABLE E3 - CONTINUED

ONTARIO TRADE BALANCE DEFICITS WITH THE U.S. (CONTINUED)

SIC	NAME OF INDUSTRY	TRADE BALANCE ($000)
331	MFRS OF SMALL ELECTRICAL APPLIANCES	(210,799)
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	(231,623)
296	ALUMINUM ROLLING, CASTING ETC.	(248,637)
339	MFRS OF MISC. ELECTRICAL PRODUCTS	(266,859)
335	COMMUNICATIONS EQUIPMENT MFRS.	(349,321)
399	MISC. MANUFACTURING IND. NES	(401,738)
288	PUBLISHING ONLY	(407,250)
373	MFRS OF PLASTICS & SYNTHETIC RESINS	(456,746)
379	MISCELLANEOUS CHEMICAL INDUSTRIES	(683,755)
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	(758,356)
315	MISC. MACHINERY & EQUIPMENT MFRS.	(1,730,128)
318	OFFICE AND STORE MACHINERY MFRS.	(1,914,309)
325	MOTOR VEHICLE PARTS AND ACCESSORIES	(5,181,156)
TOTAL ONTARIO TRADE BALANCE DEFICITS WITH THE U.S.		(15,834,693)

UNREPORTED ONTARIO-U.S. TRADE BALANCES

SIC	NAME OF INDUSTRY	TRADE BALANCE ($000)
268	ELECTRIC LAMP AND SHADE MFRS.	-
355	READY-MIX CONCRETE MANUFACTURERS	-
302	FAB. STRUCTURAL METAL INDUSTRY	-
153	TOBACCO PRODUCTS	-
258	COFFIN AND CASKET INDUSTRY	-
188	AUTO. FABRIC ACCESSORIES	-
308	MACHINE SHOPS	-
TOTAL ONTARIO TRADE BALANCE WITH THE U.S. (ALL INDUSTRIES)		332,033

TABLE E4
ONTARIO MANUFACTURING INDUSTRIES
RANKED BY PERCENTAGE SHARE OF U.S. IMPORTS, 1984

SIC	NAME OF INDUSTRY	PERCENT SHARE
325	MOTOR VEHICLE PARTS AND ACCESSORIES	62.5
373	MFRS OF PLASTICS & SYNTHETIC RESINS	39.4
323	MOTOR VEHICLE MANUFACTURERS	35.3
357	ABRASIVES MANUFACTURERS	33.2
354	CONCRETE PRODUCTS MANUFACTURERS	32.3
107	BAKERY PRODUCTS	28.6
288	PUBLISHING ONLY	28.3
286	COMMERCIAL PRINTING	24.3
106	FEED	23.4
271	PULP AND PAPER MILLS	23.0
296	ALUMINUM ROLLING, CASTING ETC.	21.5
307	HEATING EQUIPTMENT MFRS.	20.6
352	CEMENT MANUFACTURERS	20.4
239	KNITTING	20.0
105	FLOUR & BREAKFAST CEREAL PRODUCTS	18.5
251	SAWMILLS, PLANING AND SHINGLE MILLS	18.2
358	LIME MANUFACTURERS	18.1
298	METAL ROLLING, CASTING ETC. NES	17.9
311	AGRICULTURAL IMPLEMENT INDUSTRY	16.2
297	COPPER AND COPPER ALLOY ROLLING ETC.	15.4
359	MISC. NON-METALLIC MINERAL PRODS.	15.3
306	HARDWARE, TOOL AND CUTLERY MFRS.	14.4
254	SASH, DOOR & OTHER MILLWORK PLANTS	14.2
273	PAPER BOX AND BAG MANUFACTURERS	12.5
295	SMELTING AND REFINING	12.5
162	RUBBER PRODUCTS	12.1
375	PAINT AND VARNISH MANUFACTURERS	12.1
378	MFRS OF INDUSTRIAL CHEMICALS	11.6
259	MISCELLANEOUS WOOD INDUSTRIES	11.3
301	BOILER AND PLATE WORKS	11.1
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	10.9
376	MFRS OF SOAP AND CLEANING COMPOUNDS	10.7
379	MISCELLANEOUS CHEMICAL INDUSTRIES	10.6
309	MISC. METAL FABRICATING INDS.	10.2
252	VENEER AND PLYWOOD MILLS	9.7
315	MISC. MACHINERY & EQUIPTMENT MFRS.	9.2
318	OFFICE AND STORE MACHINERY MFRS.	9.2
109	BEVERAGES	9.1
274	MISCELLANEOUS PAPER CONVERTERS	8.6
291	IRON AND STEEL MILLS	8.4
316	COMMERCIAL REFRIG. AIR COND. MFRS.	8.2
304	METAL STAMPING, PRESSING AND COATING	7.9
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	7.5
399	MISC. MANUFACTURING IND. NES	7.3
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	6.3
165	PLASTIC FABRICATING (NES)	6.2
183	MAN-MADE FIBRE, YARN & CLOTH	6.1

TABLE E4 - CONTINUED

SIC	NAME OF INDUSTRY	PERCENT SHARE
326	RAILROAD ROLLING STOCK INDUSTRY	6.0
305	WIRE AND WIRE PRODUCTS MFRS.	5.8
377	MFRS OF TOILET PREPARATIONS	5.6
102	FISH PRODUCTS	5.3
101	MEAT & POULTRY PRODUCTS	5.2
172	LEATHER TANNERIES	5.0
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	4.6
108	MISC. FOODS	4.6
246	FUR GOODS	4.6
249	MISC. CLOTHING	4.2
339	MFRS OF MISC. ELECTRICAL PRODUCTS	3.8
335	COMMUNICATIONS EQUIPTMENT MFRS.	3.8
153	TOBACCO PRODUCTS	3.0
356	GLASS AND GLASS PRODUCTS MFRS.	2.7
184	CORDAGE & TWINE	2.7
266	MISC. FURNITURE AND FIXTURE MFRS.	2.6
365	PETROLEUM REFINERIES	2.4
332	MANUFACTURERS OF MAJOR APPLIANCES	2.1
189	MISC. TEXTILES	2.1
231	HOSIERY	2.0
327	SHIPBUILDING AND REPAIR	1.9
393	SPORTING GOODS AND TOY INDUSTRIES	1.7
333	MANUFACTURERS OF LIGHTING FIXTURES	1.7
353	STONE PRODUCTS MANUFACTURERS	1.7
185	FELT & FIBRE PROCESSING	1.6
372	MANUFACTURERS OF MIXED FERTILIZERS	1.5
334	MFRS. OF HOUSEHOLD RADIO AND TV	1.4
186	CARPETS, MATS & RUGS	1.4
103	FRUIT & VEGETABLE PROCESSING	1.4
374	MFRS PHARMACEUTICALS AND MEDICINES	1.0
104	DAIRY PRODUCTS	0.9
182	WOOL YARN & CLOTH	0.7
244	WOMEN'S CLOTHING	0.4
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	0.4
392	JEWELLERY AND SILVERWARE INDUSTRY	0.4
174	SHOES	0.3
181	COTTON YARN & CLOTH	0.3
243	MEN'S CLOTHING	0.2
351	CLAY PRODUCTS MANUFACTURERS	0.1
175	LEATHER GLOVES	0.1
245	CHILDREN'S CLOTHING	0.0
248	FOUNDATION GARMENTS	0.0
302	FAB. STRUCTURAL METAL INDUSTRY	0.0
324	TRUCK BODY AND TRAILER MFRS.	-
261	HOUSEHOLD FURNITURE MANUFACTURERS	-
303	ORNAMENTAL & ARCHITECTURAL METAL	-
287	PLATEMAKING, TYPESETTING ETC. IND.	-
331	MFRS OF SMALL ELECTRICAL APPLIANCES	-

TABLE E4 - CONTINUED

SIC	NAME OF INDUSTRY	PERCENT SHARE
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-
268	ELECTRIC LAMP AND SHADE MFRS.	-
328	BOATBUILDING AND REPAIR	-
289	PUBLISHING AND PRINTING	-
264	OFFICE FURNITURE MANUFACTURERS	-
308	MACHINE SHOPS	-
397	SIGNS AND DISPLAYS INDUSTRY	-
292	STEEL PIPE AND TUBE MILLS	-
256	WOODEN BOX FACTORIES	-
258	COFFIN AND CASKET INDUSTRY	-
338	MFRS OF ELECTRIC WIRE AND CABLE	-
151	LEAF TOBACCO PROCESSORS	-
294	IRON FOUNDRIES	-
369	MISC. PETROLEUM & COAL PRODS. INDS.	-
355	READY-MIX CONCRETE MANUFACTURERS	-
272	ASPHALT ROOFING MANUFACTURERS	-
188	AUTO. FABRIC ACCESSORIES	-
	AVERAGE SHARE ALL INDUSTRIES	13.8

TABLE E5
ONTARIO MANUFACTURING INDUSTRIES 1
RANKED BY CHANGE IN SHARE OF U.S. IMPORTS, 1978-1984

INCREASED SHARES

SIC	NAME OF INDUSTRY	% CHANGE
239	KNITTING	17.3
323	MOTOR VEHICLE MANUFACTURERS	16.6
307	HEATING EQUIPTMENT MFRS.	13.7
286	COMMERCIAL PRINTING	11.8
251	SAWMILLS, PLANING AND SHINGLE MILLS	9.3
295	SMELTING AND REFINING	9.2
296	ALUMINUM ROLLING, CASTING ETC.	7.5
162	RUBBER PRODUCTS	7.1
309	MISC. METAL FABRICATING INDS.	6.7
359	MISC. NON-METALLIC MINERAL PRODS.	6.2
376	MFRS OF SOAP AND CLEANING COMPOUNDS	6.1
252	VENEER AND PLYWOOD MILLS	5.1
106	FEED	4.6
273	PAPER BOX AND BAG MANUFACTURERS	4.6
101	MEAT & POULTRY PRODUCTS	3.1
377	MFRS OF TOILET PREPARATIONS	3.0
183	MAN-MADE FIBRE, YARN & CLOTH	2.9
301	BOILER AND PLATE WORKS	2.9
108	MISC. FOODS	2.9
165	PLASTIC FABRICATING (NES)	2.8
249	MISC. CLOTHING	2.5
259	MISCELLANEOUS WOOD INDUSTRIES	2.5
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	1.9
231	HOSIERY	1.8
254	SASH, DOOR & OTHER MILLWORK PLANTS	1.7
184	CORDAGE & TWINE	1.5
327	SHIPBUILDING AND REPAIR	1.4
399	MISC. MANUFACTURING IND. NES	1.3
353	STONE PRODUCTS MANUFACTURERS	1.2
332	MANUFACTURERS OF MAJOR APPLIANCES	1.0
153	TOBACCO PRODUCTS	1.0
393	SPORTING GOODS AND TOY INDUSTRIES	0.9
306	HARDWARE, TOOL AND CUTLERY MFRS.	0.9
186	CARPETS, MATS & RUGS	0.6
291	IRON AND STEEL MILLS	0.5
374	MFRS PHARMACEUTICALS AND MEDICINES	0.5
102	FISH PRODUCTS	0.5
104	DAIRY PRODUCTS	0.4
182	WOOL YARN & CLOTH	0.4
379	MISCELLANEOUS CHEMICAL INDUSTRIES	0.3
189	MISC. TEXTILES	0.3
288	PUBLISHING ONLY	0.2
244	WOMEN'S CLOTHING	0.2
365	PETROLEUM REFINERIES	0.1
372	MANUFACTURERS OF MIXED FERTILIZERS	0.1

TABLE E5 -CONTINUED

INCREASED SHARES - CONTINUED

SIC	NAME OF INDUSTRY	% CHANGE
243	MEN'S CLOTHING	0.1
103	FRUIT & VEGETABLE PROCESSING	0.0
392	JEWELLERY AND SILVERWARE INDUSTRY	0.0
181	COTTON YARN & CLOTH	0.0
297	COPPER AND COPPER ALLOY ROLLING ETC.	0.0
302	FAB. STRUCTURAL METAL INDUSTRY	0.0

DECREASED SHARES

SIC	NAME OF INDUSTRY	% CHANGE
248	FOUNDATION GARMENTS	-0.0
245	CHILDREN'S CLOTHING	-0.0
175	LEATHER GLOVES	-0.0
351	CLAY PRODUCTS MANUFACTURERS	-0.1
333	MANUFACTURERS OF LIGHTING FIXTURES	-0.1
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	-0.2
315	MISC. MACHINERY & EQUIPMENT MFRS.	-0.2
335	COMMUNICATIONS EQUIPMENT MFRS.	-0.2
271	PULP AND PAPER MILLS	-0.2
334	MFRS. OF HOUSEHOLD RADIO AND TV	-0.3
266	MISC. FURNITURE AND FIXTURE MFRS.	-0.3
174	SHOES	-0.6
352	CEMENT MANUFACTURERS	-1.0
107	BAKERY PRODUCTS	-1.1
339	MFRS OF MISC. ELECTRICAL PRODUCTS	-1.2
109	BEVERAGES	-1.3
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	-1.3
172	LEATHER TANNERIES	-1.4
274	MISCELLANEOUS PAPER CONVERTERS	-1.4
305	WIRE AND WIRE PRODUCTS MFRS.	-1.9
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	-2.0
378	MFRS OF INDUSTRIAL CHEMICALS	-2.1
356	GLASS AND GLASS PRODUCTS MFRS.	-2.2
246	FUR GOODS	-2.7
185	FELT & FIBRE PROCESSING	-3.8
325	MOTOR VEHICLE PARTS AND ACCESSORIES	-5.1
321	AIRCRAFT & AIRCRAFT PARTS MFRS.	-5.7
318	OFFICE AND STORE MACHINERY MFRS.	-5.7
357	ABRASIVES MANUFACTURERS	-6.3
304	METAL STAMPING, PRESSING AND COATING	-6.6
316	COMMERCIAL REFRIG. AIR COND. MFRS.	-7.6
354	CONCRETE PRODUCTS MANUFACTURERS	-9.1
373	MFRS OF PLASTICS & SYNTHETIC RESINS	-10.5
105	FLOUR & BREAKFAST CEREAL PRODUCTS	-10.9
311	AGRICULTURAL IMPLEMENT INDUSTRY	-14.2
298	METAL ROLLING, CASTING ETC. NES	-17.9
326	RAILROAD ROLLING STOCK INDUSTRY	-18.5
375	PAINT AND VARNISH MANUFACTURERS	-20.2
358	LIME MANUFACTURERS	-36.5

TABLE E5 -CONTINUED

SHARES UNKNOWN		
SIC	NAME OF INDUSTRY	% CHANGE
338	MFRS OF ELECTRIC WIRE AND CABLE	-
261	HOUSEHOLD FURNITURE MANUFACTURERS	-
303	ORNAMENTAL & ARCHITECTURAL METAL	-
287	PLATEMAKING, TYPESETTING ETC. IND.	-
331	MFRS OF SMALL ELECTRICAL APPLIANCES	-
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-
268	ELECTRIC LAMP AND SHADE MFRS.	-
328	BOATBUILDING AND REPAIR	-
289	PUBLISHING AND PRINTING	-
264	OFFICE FURNITURE MANUFACTURERS	-
308	MACHINE SHOPS	-
324	TRUCK BODY AND TRAILER MFRS.	-
292	STEEL PIPE AND TUBE MILLS	-
256	WOODEN BOX FACTORIES	-
258	COFFIN AND CASKET INDUSTRY	-
397	SIGNS AND DISPLAYS INDUSTRY	-
151	LEAF TOBACCO PROCESSORS	-
294	IRON FOUNDRIES	-
369	MISC. PETROLEUM & COAL PRODS. INDS.	-
355	READY-MIX CONCRETE MANUFACTURERS	-
272	ASPHALT ROOFING MANUFACTURERS	-
188	AUTO. FABRIC ACCESSORIES	-
	TOTAL ALL INDUSTRIES	0.7

1. ABSOLUTE DIFFERENCE BETWEEN 1978 AND 1984

TABLE E6
ONTARIO MANUFACTURING INDUSTRIES RANKED BY % SHARE OF DOMESTIC MARKET ACCOUNTED FOR BY U.S. IMPORTS, 1985

SIC CODE	NAME OF INDUSTRY	PERCENT SHARE
325	MOTOR VEHICLE PARTS AND ACCESSORIES	95.7
318	OFFICE AND STORE MACHINERY MFRS.	84.9
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	63.2
321	AIRCRAFT & AIRCRAFT PARTS MFRS.	61.0
311	AGRICULTURAL IMPLEMENT INDUSTRY	55.2
399	MISC. MANUFACTURING IND. NES	53.4
315	MISC. MACHINERY & EQUIPTMENT MFRS.	52.5
373	MFRS OF PLASTICS & SYNTHETIC RESINS	49.8
328	BOATBUILDING AND REPAIR	49.5
333	MANUFACTURERS OF LIGHTING FIXTURES	47.2
316	COMMERCIAL REFRIG. AIR COND. MFRS.	45.4
357	ABRASIVES MANUFACTURERS	43.5
258	COFFIN AND CASKET INDUSTRY	41.6
296	ALUMINUM ROLLING, CASTING ETC.	40.9
335	COMMUNICATIONS EQUIPTMENT MFRS.	40.5
334	MFRS. OF HOUSEHOLD RADIO AND TV	37.9
288	PUBLISHING ONLY	36.9
323	MOTOR VEHICLE MANUFACTURERS	32.8
306	HARDWARE, TOOL AND CUTLERY MFRS.	31.6
353	STONE PRODUCTS MANUFACTURERS	31.4
331	MFRS OF SMALL ELECTRICAL APPLIANCES	31.0
309	MISC. METAL FABRICATING INDS.	30.8
359	MISC. NON-METALLIC MINERAL PRODS.	28.2
379	MISCELLANEOUS CHEMICAL INDUSTRIES	28.0
305	WIRE AND WIRE PRODUCTS MFRS.	24.7
339	MFRS OF MISC. ELECTRICAL PRODUCTS	24.4
356	GLASS AND GLASS PRODUCTS MFRS.	21.8
351	CLAY PRODUCTS MANUFACTURERS	21.6
239	KNITTING	20.1
252	VENEER AND PLYWOOD MILLS	19.7
289	PUBLISHING AND PRINTING	18.4
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	18.3
292	STEEL PIPE AND TUBE MILLS	18.1
183	MAN-MADE FIBRE, YARN & CLOTH	18.1
259	MISCELLANEOUS WOOD INDUSTRIES	18.1
189	MISC. TEXTILES	18.0
378	MFRS OF INDUSTRIAL CHEMICALS	17.9
393	SPORTING GOODS AND TOY INDUSTRIES	17.4
184	CORDAGE & TWINE	15.6
162	RUBBER PRODUCTS	15.5

TABLE E6 - CONTINUED

SIC CODE	NAME OF INDUSTRY	PERCENT SHARE
375	PAINT AND VARNISH MANUFACTURERS	15.0
294	IRON FOUNDRIES	14.5
271	PULP AND PAPER MILLS	13.9
332	MANUFACTURERS OF MAJOR APPLIANCES	13.8
165	PLASTIC FABRICATING (NES)	13.5
185	FELT & FIBRE PROCESSING	12.9
324	TRUCK BODY AND TRAILER MFRS.	12.8
307	HEATING EQUIPMENT MFRS.	12.6
326	RAILROAD ROLLING STOCK INDUSTRY	12.3
374	MFRS PHARMACEUTICALS AND MEDICINES	12.1
377	MFRS OF TOILET PREPARATIONS	11.8
338	MFRS OF ELECTRIC WIRE AND CABLE	11.0
392	JEWELLERY AND SILVERWARE INDUSTRY	10.7
103	FRUIT & VEGETABLE PROCESSING	10.3
249	MISC. CLOTHING	10.0
182	WOOL YARN & CLOTH	9.6
297	COPPER AND COPPER ALLOY ROLLING ETC.	9.5
274	MISCELLANEOUS PAPER CONVERTERS	9.3
298	METAL ROLLING, CASTING ETC. NES	8.5
266	MISC. FURNITURE AND FIXTURE MFRS.	8.4
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	8.3
291	IRON AND STEEL MILLS	8.2
261	HOUSEHOLD FURNITURE MANUFACTURERS	8.2
172	LEATHER TANNERIES	8.0
264	OFFICE FURNITURE MANUFACTURERS	7.8
397	SIGNS AND DISPLAYS INDUSTRY	7.7
286	COMMERCIAL PRINTING	7.6
372	MANUFACTURERS OF MIXED FERTILIZERS	7.5
254	SASH, DOOR & OTHER MILLWORK PLANTS	6.7
352	CEMENT MANUFACTURERS	6.4
304	METAL STAMPING, PRESSING AND COATING	5.7
231	HOSIERY	5.4
287	PLATEMAKING, TYPESETTING ETC. IND.	5.3
101	MEAT & POULTRY PRODUCTS	4.7
245	CHILDREN'S CLOTHING	4.6
105	FLOUR & BREAKFAST CEREAL PRODUCTS	4.0
301	BOILER AND PLATE WORKS	4.0
256	WOODEN BOX FACTORIES	3.5
106	FEED	3.3
273	PAPER BOX AND BAG MANUFACTURERS	2.9
303	ORNAMENTAL & ARCHITECTURAL METAL	2.7
365	PETROLEUM REFINERIES	2.7
174	SHOES	2.5
244	WOMEN'S CLOTHING	2.3
[illegible]	[illegible]	[illegible]

TABLE E6 - CONTINUED

SIC CODE	NAME OF INDUSTRY	PERCENT SHARE
246	FUR GOODS	2.0
107	BAKERY PRODUCTS	1.9
327	SHIPBUILDING AND REPAIR	1.7
358	LIME MANUFACTURERS	1.3
272	ASPHALT ROOFING MANUFACTURERS	1.2
243	MEN'S CLOTHING	1.1
354	CONCRETE PRODUCTS MANUFACTURERS	1.1
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	1.1
248	FOUNDATION GARMENTS	1.1
175	LEATHER GLOVES	1.0
109	BEVERAGES	0.8
104	DAIRY PRODUCTS	0.4
302	FAB. STRUCTURAL METAL INDUSTRY	0.2
376	MFRS OF SOAP AND CLEANING COMPOUNDS	0.2
369	MISC. PETROLEUM & COAL PRODS. INDS.	-
329	MISCELLANEOUS VEHICLE MANUFACTURERS	-
151	LEAF TOBACCO PROCESSORS	-
181	COTTON YARN & CLOTH	-
186	CARPETS, MATS & RUGS	-
251	SAWMILLS, PLANING AND SHINGLE MILLS	-
308	MACHINE SHOPS	-
295	SMELTING AND REFINING	-
355	READY-MIX CONCRETE MANUFACTURERS	-
108	MISC. FOODS	-
153	TOBACCO PRODUCTS	-
188	AUTO. FABRIC ACCESSORIES	-
102	FISH PRODUCTS	-
	TOTAL ALL INDUSTRIES	31.9

TABLE E7
ONTARIO MANUFACTURING INDUSTRIES
RANKED BY CHANGES IN U.S. SHARE OF ONTARIO MARKET

INCREASED SHARE

SIC	NAME OF INDUSTRY	PERCENTAGE CHANGE 1980-85 (%)
329	MISCELLANEOUS VEHICLE MANUFACTURERS	20.4
391	SCIENTIFIC AND PROFFESSIONAL EQUIP.	14.3
399	MISC. MANUFACTURING IND. NES	13.3
328	BOATBUILDING AND REPAIR	13.0
316	COMMERCIAL REFRIG. AIR COND. MFRS.	12.2
333	MANUFACTURERS OF LIGHTING FIXTURES	11.1
309	MISC. METAL FABRICATING INDS.	10.1
351	CLAY PRODUCTS MANUFACTURERS	8.3
306	HARDWARE, TOOL AND CUTLERY MFRS.	8.0
353	STONE PRODUCTS MANUFACTURERS	8.0
357	ABRASIVES MANUFACTURERS	7.5
307	HEATING EQUIPMENT MFRS.	6.8
373	MFRS OF PLASTICS & SYNTHETIC RESINS	5.8
252	VENEER AND PLYWOOD MILLS	5.7
392	JEWELLERY AND SILVERWARE INDUSTRY	5.5
324	TRUCK BODY AND TRAILER MFRS.	5.4
359	MISC. NON-METALLIC MINERAL PRODS.	5.4
315	MISC. MACHINERY & EQUIPMENT MFRS.	5.3
375	PAINT AND VARNISH MANUFACTURERS	5.2
323	MOTOR VEHICLE MANUFACTURERS	5.2
305	WIRE AND WIRE PRODUCTS MFRS.	5.1
338	MFRS OF ELECTRIC WIRE AND CABLE	4.8
318	OFFICE AND STORE MACHINERY MFRS.	4.7
259	MISCELLANEOUS WOOD INDUSTRIES	4.4
334	MFRS. OF HOUSEHOLD RADIO AND TV	4.3
325	MOTOR VEHICLE PARTS AND ACCESSORIES	4.2
182	WOOL YARN & CLOTH	4.0
249	MISC. CLOTHING	4.0
335	COMMUNICATIONS EQUIPMENT MFRS.	3.6
397	SIGNS AND DISPLAYS INDUSTRY	3.6
296	ALUMINUM ROLLING, CASTING ETC.	3.4
266	MISC. FURNITURE AND FIXTURE MFRS.	3.3
258	COFFIN AND CASKET INDUSTRY	3.3
289	PUBLISHING AND PRINTING	3.3
239	KNITTING	2.7
165	PLASTIC FABRICATING (NES)	2.7
339	MFRS OF MISC. ELECTRICAL PRODUCTS	2.4
162	RUBBER PRODUCTS	2.4
303	ORNAMENTAL & ARCHITECTURAL METAL	2.4
254	SASH, DOOR & OTHER MILLWORK PLANTS	2.2

TABLE E7 - CONTINUED

DECREASED SHARE CONTINUED OR SHARE UNKNOWN		
SIC	NAME OF INDUSTRY	1980-85
268	ELECTRIC LAMP AND SHADE MFRS.	-1.0
286	COMMERCIAL PRINTING	-1.1
336	MFRS ELECTRICAL INDUSTRIAL EQUIP.	-1.3
372	MANUFACTURERS OF MIXED FERTILIZERS	-1.4
379	MISCELLANEOUS CHEMICAL INDUSTRIES	-1.6
356	GLASS AND GLASS PRODUCTS MFRS.	-1.8
287	PLATEMAKING, TYPESETTING ETC. IND.	-1.8
189	MISC. TEXTILES	-1.9
248	FOUNDATION GARMENTS	-2.1
187	CANVAS PRODUCTS, COTTON & JUTE BAGS	-2.2
302	FAB. STRUCTURAL METAL INDUSTRY	-2.6
358	LIME MANUFACTURERS	-2.9
393	SPORTING GOODS AND TOY INDUSTRIES	-3.4
321	AIRCFRAFT & AIRCRAFT PARTS MFRS.	-3.5
294	IRON FOUNDRIES	-4.2
301	BOILER AND PLATE WORKS	-4.5
288	PUBLISHING ONLY	-4.6
378	MFRS OF INDUSTRIAL CHEMICALS	-4.7
231	HOSIERY	-4.7
172	LEATHER TANNERIES	-5.2
292	STEEL PIPE AND TUBE MILLS	-5.9
377	MFRS OF TOILET PREPARATIONS	-7.9
298	METAL ROLLING, CASTING ETC. NES	-8.6
311	AGRICULTURAL IMPLEMENT INDUSTRY	-9.5
186	CARPETS, MATS & RUGS	-
355	READY-MIX CONCRETE MANUFACTURERS	-
295	SMELTING AND REFINING	-
108	MISC. FOODS	-
308	MACHINE SHOPS	-
188	AUTO. FABRIC ACCESSORIES	-
153	TOBACCO PRODUCTS	-
151	LEAF TOBACCO PROCESSORS	-
369	MISC. PETROLEUM & COAL PRODS. INDS.	-
181	COTTON YARN & CLOTH	-
251	SAWMILLS, PLANING AND SHINGLE MILLS	-
102	FISH PRODUCTS	-
	AVERAGE CHANGE ALL INDUSTRIES	6.8

TABLE E7 - CONTINUED

INCREASED SHARE - CONTINUED

SIC	NAME OF INDUSTRY	1980-85
245	CHILDREN'S CLOTHING	1.7
304	METAL STAMPING, PRESSING AND COATING	1.6
183	MAN-MADE FIBRE, YARN & CLOTH	1.5
291	IRON AND STEEL MILLS	1.2
184	CORDAGE & TWINE	1.0
105	FLOUR & BREAKFAST CEREAL PRODUCTS	1.0
106	FEED	0.9
246	FUR GOODS	0.9
271	PULP AND PAPER MILLS	0.8
101	MEAT & POULTRY PRODUCTS	0.8
175	LEATHER GLOVES	0.7
261	HOUSEHOLD FURNITURE MANUFACTURERS	0.7
352	CEMENT MANUFACTURERS	0.7
332	MANUFACTURERS OF MAJOR APPLIANCES	0.6
365	PETROLEUM REFINERIES	0.6
354	CONCRETE PRODUCTS MANUFACTURERS	0.5
256	WOODEN BOX FACTORIES	0.4
107	BAKERY PRODUCTS	0.4
297	COPPER AND COPPER ALLOY ROLLING ETC.	0.3
244	WOMEN'S CLOTHING	0.2
272	ASPHALT ROOFING MANUFACTURERS	0.1
109	BEVERAGES	0.1
327	SHIPBUILDING AND REPAIR	0.1
104	DAIRY PRODUCTS	0.1

DECREASED SHARE

SIC	NAME OF INDUSTRY	1980-85
274	MISCELLANEOUS PAPER CONVERTERS	-0.0
185	FELT & FIBRE PROCESSING	-0.1
376	MFRS OF SOAP AND CLEANING COMPOUNDS	-0.2
326	RAILROAD ROLLING STOCK INDUSTRY	-0.3
103	FRUIT & VEGETABLE PROCESSING	-0.4
273	PAPER BOX AND BAG MANUFACTURERS	-0.5
374	MFRS PHARMACEUTICALS AND MEDICINES	-0.5
174	SHOES	-0.6
264	OFFICE FURNITURE MANUFACTURERS	-0.6
331	MFRS OF SMALL ELECTRICAL APPLIANCES	-0.6
243	MEN'S CLOTHING	-0.6
179	LUGGAGE,HANDBAG & SMALL LEATH.GDS.	-0.9

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